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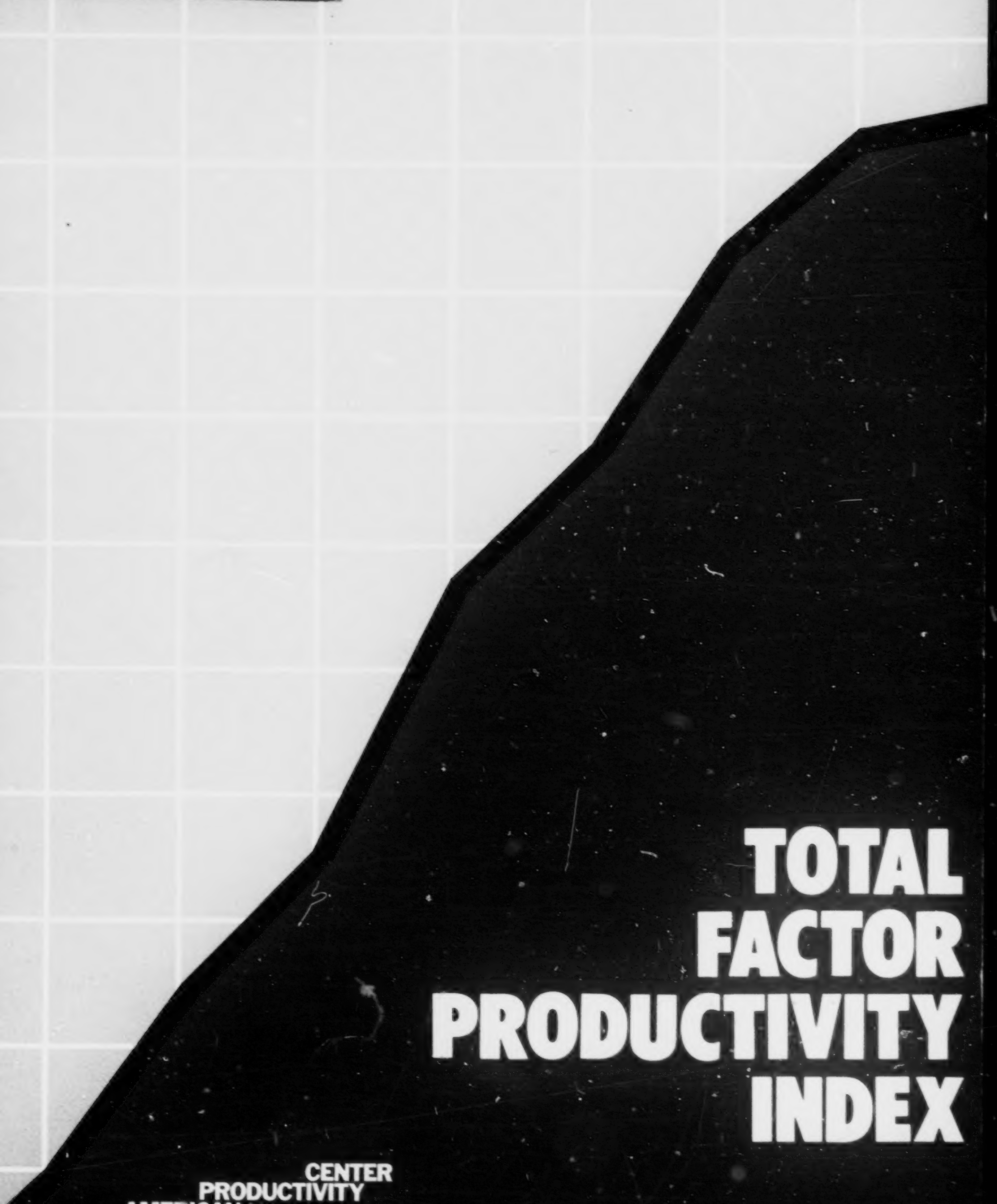

TOTAL FACTOR PRODUCTIVITY INDEX

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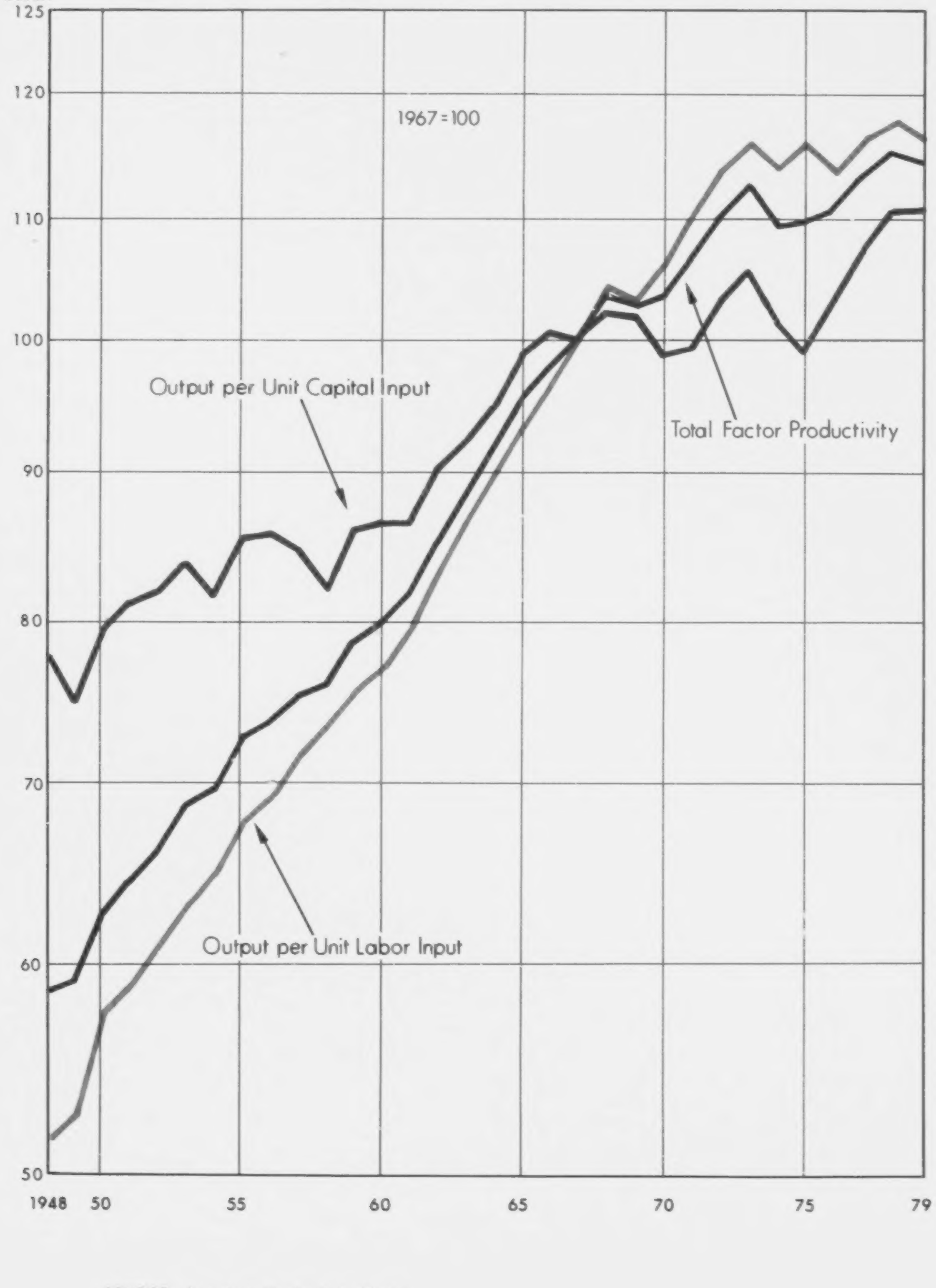
CAPITAL, LABOR, AND TOTAL FACTOR PRODUCTIVITY IN U.S. PRIVATE DOMESTIC ECONOMY, 1948–79



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PREFACE

Productivity measures based solely on labor input, which were accepted in the past as valid, are becoming of less use in many industries, especially those which are capital intensive. In fact, labor productivity measures may be actually misleading in some instances, since a significant growth in the index of labor productivity may give a sense of false security and not reflect the true problems stemming from increasingly expensive and, perhaps, increasingly less effective inputs of capital.

The resultant urgent need for improved multiple-input or "total" productivity measures has been emphasized in recently completed reports and recommendations for action by the Joint Economic Committee of the Congress; by the General Accounting office; and by an inter-agency Committee under the auspices of the National Academy of Science with the Chairmanship of Dr. Albert Rees.

Hence, in view of my fundamental belief in the importance of total productivity measurement, the American Productivity Center is now inaugurating the regular quarterly production of indexes of "total factor" productivity for the private domestic business economy and for major segments and industries based on the approach pioneered by John Kendrick. While not a true "total" productivity series, the total-factor indexes represent a significant step in the proper direction.

The "total factor" indexes match the weighted inputs of capital and labor for each industry or segment of the economy against its deflated "value added" output, using the Department of Commerce's Gross National Product series. The APC plans the development and current publication — probably within the year — of a companion "total productivity" series, which will include on both sides of the ratio energy, fuels, materials and components.

The data provided in this document represent the first current presentation of these valuable indexes, revised and extended from the Kendrick series by Dr. Elliot Grossman. It provides annual indexes of productivity through calendar 1979 for the major segments of the economy; through calendar 1978 for individual sectors and industries, and quarterly indexes through 1980[I] for the major sectors.

Revised and further up-dated indexes will be published on a quarterly basis covering the private domestic economy, agriculture, manufacturing, non-financial corporations, and non-farm industry, with annual consolidations.

A significant feature of the Center's new series is that it also provides annual trend indexes for the twenty SIC two-digit manufacturing industry groups, in addition to the major sectors of the economy.

To the extent that specific industry interest requires and funding is made available, comparable annual data can be provided for specific three of four-digit SIC categories. The Center will welcome specific coverage proposals from its clients.

I personally commend to you this new service of the American Productivity Center. I am convinced it will prove to be a most useful tool for industrial managers, as well as for those in the Government, Research Institutes and academia who have an interest in productivity data and concepts. I am confident future refinements of the Center's indexes will meet, at least in part, urgent current requirements for "total" productivity measures; for more specific quantitative data on capital/labor/energy/materials tradeoffs; and also a meaningful indication of the impact of fluctuations in plant utilization on short-term productivity gains and losses.

C. Jackson Grayson, Jr.
Chairman
American Productivity Center

REFERENCES

Comparable historical data for these total factor productivity indexes are presented in several books authored by Dr. Kendrick, covering periods extending back to 1889. The following titles are included in the Kendrick historical series:

1. "Productivity in the United States: Trends and Cycles", with Elliott Grossman. This book includes data through calendar 1976. Johns Hopkins University Press, May 1980;

2. "Post-War Productivity Trends in the U.S.," with data through calendar 1969. National Bureau of Economic Research, New York, NY, 1973;

3. "Productivity Trends in the United States," with data through 1958. National Bureau of Economic Research, New York, NY, 1961; and

4. "Understanding Productivity," a general-audience paperbound book on productivity and its significance for economic growth, wages, prices and employment, with data through 1973. Johns Hopkins University Press, Baltimore, MD, 1977.

Users of the Center's new total factor productivity indexes may wish to obtain the Johns Hopkins University text (1. above), which presents a wealth of detailed supporting material and analytical text.

RECENT TRENDS IN PRODUCTIVITY

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The American Productivity Center is now publishing current estimates of Total Factor Productivity by major sector and industries. Total Factor Productivity (TFP) measures the gain in efficiency by which our economy is able to produce goods and services.[1] Simply stated, TFP is the ratio of real (price adjusted) output to total tangible factors of production: labor and capital (capital includes plant, equipment, land and inventories). When output grows faster than labor and capital inputs, output is being produced more efficiently — thus there is a rise in productivity.

Productivity growth is intimately tied to rises in real income, as an offset to inflationary pressures, and to profit margins. Only through gains in productivity can labor earn higher wages which do not lead to higher costs, thus enabling growth in real per capita income, resulting in a rise in the standard of living. Productivity is also an important factor in the business cycle. During periods of decline in productivity growth, profit margins are squeezed. This squeeze in margins is a signal to business to restrict its activities, especially investment in new capital, thereby further depressing business activity. As the economy begins to revive, productivity accelerates, profit margins are enhanced, cost pressures are reduced, and further growth is encouraged.

Productivity is one of two major factors determining the long-term growth of potential output: Growth in potential output depends on the rate of productivity gains and on the growth rate of the working population.

The method[2] used by the Center to measure TFP is to take real output and real gross capital in 1972 prices, and labor input as hours worked. Output, labor and capital inputs are then converted to a 1967 (= 100) base. Total Factor Productivity is then defined as the ratio of real output to weighted labor and capital inputs. The weights used are the shares of gross income originating. For example, the 1978 weights for the private domestic business economy are 67.6% for labor and 32.4% for capital.

Current Trends

Over the postwar period real output of the private domestic business economy grew at an average compound annual rate of 3.6% (1948 to 1978). Over this same period total (weighted) factor input rose at a 1.3% rate, indicating that total factor productivity — gains in efficiency — rose at an average rate of 2.3%. However, this gain in efficiency in producing our economy's goods and services did not grow at a steady pace. From 1948 to 1965 TFP rose at a 3.0% rate, then between 1965 and 1973 TFP growth declined to 2.1%. Since the onset of the energy crisis in 1973 and the severe 1974-75 recession, TFP growth dropped even further to a very weak 0.2% rate (1973-78). Finally, between 1978 and 1979, productivity actually declined by 0.9 percent.

Many factors have contributed to the slowdown in productivity[3] and no one factor is the sole cause. One major contributing factor has been the growth in labor relative to capital. During the 1948-65 period, labor input grew at a 0.3% rate, increased to 1.1% over 1965-73, and then jumped to a 1.6% rate. At the same time, the rate of growth in capital input actually *rose* from the 1948-65 period to the 1965-73 period, (from 2.3% to 3.0%), but slowed down to a 1.3% rate between 1973 and 1978. Thus we see that factors other than declines in the growth of the Nation's capital stock are responsible for the 1965-73 slowdown in TFP. In contrast, it is the deceleration in capital that has been a major factor in the 1973-78 slowdown of total factor productivity.

Examination of the capital-labor ratio, which indicates the rate of substitution of capital for labor in the production process, tells a similar story. Over the 1948-65 and 1965-73 periods, the capital-labor ratio grew at essentially the same rate, 2.1% and 1.9%, respectively. However, over the 1973-78 period this ratio actually declined at a

0.2% rate, implying that businesses are depending more heavily on labor than capital to meet increases in output, at least relatively so. And, between 1978-79 the capital-labor ratio continued to decline (at a 1.5% rate). One possible contributing factor to the slowdown by which capital is being substituted for labor could be that wages are not rising as fast relative to the cost of real capital (due to increases in the price of capital and interest rates) as in the past. A second likely factor is that the enormous rise in energy costs since 1973 has rendered the use of capital relatively more expensive to operate than labor.

Output per unit labor and output per unit capital are the two partial productivity ratios of total factor productivity. However, neither ratio is a true measure of the gains in efficiency attributable to labor or capital because of the impact of substitution of one input for another. Commonly known as labor productivity, the ratio of output to labor hours is regularly published by the U.S. Department of Labor, Bureau of Labor Statistics. Generally, the rates of growth of labor productivity are higher than those of TFP, but follow the same pattern of deceleration: 3.6% during the 1948-65 period, to 2.7% (1965-73), to only 0.1% (1973-78). Interestingly, labor productivity in 1979 (over 1978) had a steeper decline than TFP, 1.4% versus 0.9%, mainly due to the unusually large jump in labor hours (3.9%).

Output per unit capital does not exhibit as severe a slowdown in its growth rates. Over the 1948-65 period output per unit capital rose at a 1.4% rate. Then, over the two succeeding sub-periods (1965-73 and 1973-78), the output-capital ratio rose at about the same rate (0.8% and 0.9%, respectively), even though the increases in capital input slowed considerably over these two sub-periods (2.9% in 1965-73 and 1.8% in 1973-78).

All four major sectors have shared in the deceleration of TFP. Productivity in the farming sector grew at a 3.7% rate between 1948 and 1965, 2.3% over 1965-73, and 1.6% over 1973-78, one-half the rate during the earliest period. The non-farm non-manufacturing sector experienced the steepest decline in its productivity growth rates of all three major sectors, dropping from 2.6% (1948-65), to 1.8% (1965-73), and to just 0.1% over the most recent sub-period. Manufacturing TFP exhibits a similar pattern of declining growth: 2.5% between 1948 and 1965; 1.8% (1965-73); and 1.0% (1973-78). However, the decline of TFP for the private domestic business economy in 1979 is solely due to a 2.9% drop in TFP of the non-farm non-manufacturing sector. Both farming and manufacturing sectors maintained increases in TFP during 1979, 1.9% and 1.4%, respectively.

INDUSTRY ESTIMATES

Among individual industries, growth rates in productivity over the 1948-78 postwar period range from a low of −0.1% for the primary metals industry to a high of 4.7% for the communications industry. In addition to communications, some of the other industries exhibiting higher productivity gains include electrical machinery (3.5%), public utilities (3.2%) and textiles (3.2%). The finance and insurance, and construction industries also exhibited neglible gains in TFP (0.1% and 0.7%, respectively).

Most industries exhibited declines in their growth of TFP over the last fifteen years. Some of the more dramatic declines were exhibited by the lumber industry, dropping from 4.8% over 1948-65, to only 0.8% over 1965-73 to falling at a 0.1% rate over 1973-78; and the construction industry, dropping from 2.7% (1948-65), to actual declines in productivity of 2.0% (1965-73) and 1.3% (1973-78).

Not all industries experienced slowdowns in their TFP growth rates. Some industries even experienced an acceleration in TFP since 1965. For example, TFP in the apparel industry accelerated from a 2.0% (1948-65), to 3.2% (1965-73) and 3.5% (1973-78). Another case in point is the miscellaneous manufactures industry, which experienced a growth in its TFP from 2.1% in the earlier 1948-65 period to 3.0% (1965-73) and 3.6% (1973-78).

The two industries with the largest postwar gains in productivity, communications and electrical machinery, illustrate that growth in TFP results not only from the substitution of capital for labor, but from other sources as well. Whereas the capital-labor ratio of the communications industry grew at a 4.7% rate (1948-78), the capital-labor ratio for the electrical industry grew only at a 1.7% rate over the same period.

SUMMARY

The deceleration in the growth of total factor productivity has both contributed to and is a result of the current stagflation. A rising productivity growth rate would lower inflationary pressures and encourage economic growth, thereby leading to gains in employment and the competitive position of American products in world markets. While the slowdown in TFP is not exhibited by all industries, it is sufficiently broad-based that incentives to encourage an acceleration in productivity are one of the major foundations of any anti-inflationary economic policy.

In the recent study by Kendrick and Grossman[4], there are several examples of how the sector and industry estimates of total factor productivity may be analyzed. For example, productivity estimates may be used to examine to what degree total factor productivity has been an offset to prices, and labor and capital productivity ratios have been offsets to increases in labor and capital costs. Another use of productivity estimates is to examine the timing — leads and lags — between productivity, prices, profit margins and output over the business cycle. Finally, comparisons of differentials in TFP growth rates among industries aid in explaining the causes of productivity.

The American Productivity Center plans to continue publishing estimates of the major sectors on a quarterly basis, and the industries on an annual basis. At some later time, quarterly industry estimates may be made available.

FOOTNOTES

[1] For further background, analysis and estimates of TFP through 1976, see J. W. Kendrick and E. S. Grossman, *Productivity in the United States: Trends and Cycles*, The Johns Hopkins University Press, (Baltimore, MD), 1980.

[2] See Kendrick and Grossman, *Ibid.*

[3] See Kendrick and Grossman, *Ibid.*; see also by Kendrick, "Productivity Trends and the Recent Slowdown: Historical Perspective, Causal Factors, and Policy Options," in *Contemporary Economic Problems 1979*, W. Fellner, ed., The American Enterprise Institute for Public Policy Research, (Washington, D.C.), 1979.

[4] Kendrick and Grossman, *Ibid.*

Table I
Total Factor Productivity By Major Segment of the Economy (Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
1. Total factor productivity					
Private Domestic Business Economy	2.3%	3.0%	2.1%	0.2%	−0.9%
Farming	3.0	3.7	2.3	1.6	1.9
Manufacturing Industry	2.0	2.5	1.8	1.0	1.4
Nonfarm, Nonmanufacturing Industry	2.0	2.6	1.8	0.1	−2.9
Nonfinancial Corporate Business	2.0	2.6	1.3	0.7	0.1
2. Labor productivity (Output per hour worked)					
Private Domestic Business Economy	2.7%	3.6%	2.7%	0.1%	−1.4%
Farming	4.9	5.4	5.2	2.8	4.5
Manufacturing Industry	2.6	3.0	2.5	1.7	1.9
Nonfarm, Nonmanufacturing Industry	2.3	3.1	2.4	−0.6	−3.9
Nonfinancial Corporate Business	2.5	3.2	1.9	0.9	−0.3
3. Capital productivity (Output per unit of capital input)					
Private Domestic Business Economy	1.2%	1.4%	0.8%	0.9%	0.1%
Farming	-0-	−3.0	0.2	0.7	0.2
Manufacturing Industry	0.5	1.0	0.2	−0.7	0.4
Nonfarm, Nonmanufacturing Industry	1.3	1.5	0.8	1.4	−1.1
Nonfinancial Corporate Business	0.5	0.8	−0.2	0.3	0.9

Table II
Outputs, Inputs and Capital—Labor Ratio By Major Segment of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-78	1978-79
1. Output (Real product, in 1972 dollars)					
Private Domestic Business Economy	3.6%	3.8%	3.8%	1.7%	2.5%
Farming	1.0	0.9	1.1	1.4	2.0
Manufacturing Industry	3.5	4.0	3.6	1.8	3.6
Nonfarm, Nonmanufacturing Industry	3.9	4.0	4.1	3.2	1.1
Nonfinancial Corporate Business	4.3	4.6	4.8	2.6	3.1
2. Labor input (Hours worked)					
Private Domestic Business Economy	0.8%	0.3%	1.1%	1.6%	3.9%
Farming	−3.7	−4.2	−3.9	−1.4	−2.3
Manufacturing Industry	0.9	1.0	1.2	0.1	1.8
Nonfarm, Nonmanufacturing Industry	1.6	0.9	1.6	3.9	5.3
Nonfinancial Corporate Business	1.8	1.4	2.8	1.7	3.5

Table II (Cont'd)
Outputs, Inputs and Capital—Labor Ratio By Major Segment of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-78	1978-79
3. Capital input					
Private Domestic Business Economy	2.4%	2.3%	3.0%	1.3%	2.3%
Farming	1.0	1.2	0.8	0.7	1.8
Manufacturing Industry	3.0	2.9	3.5	2.4	3.3
Nonfarm, Nonmanufacturing Industry	2.6	2.5	3.2	1.9	2.2
Nonfinancial Corporate Business	3.8	3.7	5.0	2.3	2.1
4. Capital—labor ratio					
Private Domestic Business Economy	1.6%	2.1%	1.9%	−0.2%	−1.5%
Farming	4.9	5.7	4.9	2.1	4.3
Manufacturing Industry	2.1	1.9	2.3	2.4	1.5
Nonfarm, Nonmanufacturing Industry	1.0	1.6	1.6	−1.9	−2.9
Nonfinancial Corporate Business	2.0	2.3	2.1	0.6	−1.3

Table III
Total Factor Productivity By Major Industries of the Economy (Selected Periods, 1948 - 78)

	Average Annual Rates of Change			
	1948-78	1948-65	1965-73	1973-78
Private Domestic Business Economy	2.3%	3.0%	2.1%	0.2%
Farming	3.0	3.7	2.3	1.6
Manufacturing	2.0	2.5	1.8	1.0
Food	2.8	2.7	2.6	3.2
Tobacco	2.3	2.4	3.2	0.7
Textiles	3.2	3.7	2.3	3.1
Apparel	2.6	2.0	3.2	3.5
Lumber	2.9	4.8	0.8	−0.1
Furniture	1.8	2.2	1.3	1.1
Paper	2.1	2.1	3.9	−1.0
Printing & Publishing	1.6	2.5	0.6	0.2
Chemicals	2.9	3.5	3.6	−0.2
Petroleum	2.3	3.0	1.3	1.5
Rubber	1.7	2.2	1.8	−0.1
Leather	1.2	0.9	1.8	1.0
Stone, Clay & Glass	1.4	1.9	0.6	1.2
Primary Metals	−0.1	0.7	0.4	−3.4
Fabricated Metals	1.1	1.5	0.9	0.1
Machinery, exc. Electrical	1.0	1.3	1.1	−0.4
Electrical Machinery	3.5	4.3	3.1	1.8
Transportation Equipment	2.7	3.3	1.4	2.8
Instruments	2.4	3.4	2.0	−0.1
Miscellaneous Manufactures	2.6	2.1	3.0	3.6
Nonfarm Nonmanufacturing	2.0	2.6	1.8	0.1
Mining	1.8	3.4	1.0	−2.1
Construction	0.7	2.7	−2.0	−1.3
Transportation	2.6	2.8	3.0	1.3
Railroad	2.8	4.1	2.1	−0.1
Nonrail	2.0	1.6	3.1	1.5
Communications	4.7	5.2	3.4	5.1
Public Utilities	3.2	5.2	1.7	−1.1
Trade	2.1	2.2	2.9	0.6
Finance & Insurance	0.1	0.6	−0.7	−0.2
Real Estate	2.6	3.6	1.1	1.5
Services	1.6	1.5	2.4	0.8
Nonfinancial Corporate Business	2.0	2.6	1.3	0.7

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Domestic Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs: Real Output	Output and Inputs: Labor Input	Output and Inputs: Capital Input	Output and Inputs: Total Factor Input	Productivity Ratios: Total Factor Productivity	Productivity Ratios: Output per Unit Labor	Productivity Ratios: Output per Unit Capital	Productivity Ratios: Capital Labor Ratio
1948	49.1	94.9	63.2	84.8	57.9	51.7	77.7	66.6
1949	48.2	91.4	64.4	82.8	58.2	52.7	74.9	70.5
1950	52.8	92.4	66.7	84.2	62.7	57.1	79.1	72.2
1951	56.0	94.9	69.1	86.7	64.6	59.0	81.0	72.9
1952	57.8	94.7	70.7	87.1	66.4	61.0	81.8	74.6
1953	60.4	95.3	72.0	87.9	68.7	63.3	83.9	75.5
1954	59.6	91.8	73.2	85.8	69.5	65.0	81.4	79.8
1955	64.5	95.1	75.5	88.8	72.6	67.8	85.5	79.4
1956	66.5	96.1	77.7	90.2	73.7	69.2	85.6	80.8
1957	67.6	94.6	79.7	89.8	75.2	71.5	84.7	84.3
1958	66.4	90.5	81.1	87.4	76.0	73.4	81.9	89.6
1959	71.3	94.4	82.7	90.6	78.7	75.6	86.2	87.6
1960	72.7	94.3	84.1	91.0	79.9	77.1	86.5	89.2
1961	74.0	92.9	85.5	90.5	81.7	79.6	86.5	92.0
1962	78.6	94.5	87.3	92.1	85.3	83.2	90.1	92.4
1963	82.1	94.8	89.1	92.9	88.4	86.7	92.1	94.1
1964	86.7	96.0	91.3	94.5	91.7	90.3	94.9	95.1
1965	92.7	99.1	93.8	97.4	95.3	93.6	98.8	94.7
1966	97.9	101.1	97.2	99.8	98.0	96.8	100.7	96.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	100.6	103.0	101.4	103.7	104.5	102.1	102.4
1969	108.5	105.3	106.5	105.7	102.7	103.1	101.9	101.2
1970	107.9	101.7	109.2	104.1	103.6	106.1	98.7	107.4
1971	110.9	100.6	111.9	104.3	106.4	110.2	99.1	111.2
1972	118.2	104.0	114.8	107.5	109.9	113.6	102.9	110.4
1973	125.1	108.0	118.4	111.3	112.4	115.9	105.7	109.7
1974	122.7	107.8	121.1	112.1	109.5	113.9	101.3	112.4
1975	120.7	104.1	122.1	109.9	109.8	115.9	98.8	117.3
1976	128.3	112.7	124.2	116.4	110.2	113.8	103.3	110.2
1977	136.0	116.8	126.6	120.0	113.4	116.4	107.4	108.4
1978	143.1	121.6	129.6	124.2	115.3	117.7	110.5	106.6
1979	146.7	126.3	132.6	128.3	114.3	116.1	110.6	105.0

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	42.1	73.9	45.9	65.7	64.1	57.0	91.7	62.1
1949	40.3	69.5	46.8	62.9	64.1	58.0	86.0	67.4
1950	45.3	72.8	48.7	65.8	68.9	62.2	93.0	66.9
1951	49.5	77.5	51.1	69.8	70.9	63.9	96.8	66.0
1952	50.4	78.5	52.9	71.0	70.9	64.2	95.3	67.4
1953	53.5	80.7	54.7	73.1	73.2	66.3	97.8	67.8
1954	51.9	76.3	56.0	70.4	73.7	68.0	92.8	73.3
1955	57.8	80.0	58.2	73.7	78.4	72.3	99.3	72.8
1956	59.3	81.8	60.7	75.7	78.3	72.5	97.7	74.2
1957	60.1	80.9	62.6	75.6	79.5	74.3	95.9	77.4
1958	57.4	76.2	63.6	72.6	79.0	75.3	90.3	83.5
1959	63.6	81.0	65.3	76.5	83.1	78.5	97.3	80.7
1960	65.8	82.0	67.2	77.8	84.6	80.2	97.9	82.0
1961	67.2	81.2	68.8	77.7	86.5	82.8	97.7	84.7
1962	73.2	84.4	72.6	81.0	90.3	86.7	100.8	86.1
1963	78.0	86.3	76.1	83.4	93.6	90.4	102.5	88.1
1964	83.4	89.0	80.2	86.5	96.4	93.7	104.0	90.1
1965	90.6	93.6	85.7	91.3	99.2	96.8	105.7	91.5
1966	97.7	98.8	93.9	97.4	100.3	98.9	104.1	95.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.6	103.2	105.3	103.7	102.8	103.3	101.2	102.1
1969	111.3	107.4	110.8	108.3	102.8	103.6	100.5	103.1
1970	110.1	106.3	114.4	108.4	101.6	103.6	96.3	107.6
1971	113.5	106.0	117.6	109.0	104.1	107.1	96.5	110.9
1972	122.9	111.3	122.1	114.1	107.7	110.4	100.7	109.7
1973	132.0	117.0	126.7	119.5	110.4	112.8	104.2	108.3
1974	127.3	117.4	128.3	120.2	105.9	108.4	99.2	109.3
1975	124.6	111.4	127.4	115.6	107.8	111.8	97.8	114.3
1976	133.8	115.9	130.9	119.8	111.7	115.4	102.2	112.9
1977	141.2	120.9	136.8	125.1	112.9	116.8	103.2	113.1
1978	150.0	127.0	141.8	130.9	114.6	118.1	105.8	111.6
1979	154.7	131.4	144.8	134.9	114.7	117.7	106.8	110.2

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	87.1	238.6	80.3	172.0	50.7	36.5	108.5	33.7
1949	85.4	236.6	80.8	171.0	49.9	36.1	105.7	34.2
1950	90.4	218.9	83.1	161.9	55.8	41.3	108.7	38.0
1951	86.0	207.4	84.6	156.0	55.1	41.5	101.7	40.8
1952	87.8	197.2	86.0	150.8	58.2	44.5	102.0	43.6
1953	92.4	182.5	86.7	142.7	64.7	50.6	106.6	47.5
1954	94.6	177.3	87.5	140.1	67.6	53.4	108.2	49.4
1955	97.7	180.3	90.0	142.9	68.3	54.2	108.5	50.0
1956	96.3	171.7	90.6	138.2	69.7	56.1	106.3	52.8
1957	93.5	157.9	91.8	130.9	71.4	59.2	101.8	58.2
1958	97.9	146.4	92.6	124.7	78.6	66.9	105.8	63.3
1959	94.2	146.6	94.4	125.5	75.0	64.3	99.8	64.4
1960	98.8	141.4	95.3	122.8	80.5	69.9	103.7	67.4
1961	99.5	133.8	95.4	118.3	84.1	74.4	104.4	71.3
1962	99.2	129.7	96.1	116.2	85.4	76.4	103.2	74.1
1963	101.2	124.3	96.9	113.3	89.4	81.5	104.4	78.0
1964	98.7	117.5	97.9	109.6	90.1	84.0	100.9	83.3
1965	101.7	114.5	98.6	108.1	94.0	88.8	103.1	86.1
1966	95.9	103.7	99.1	101.9	94.2	92.5	96.8	95.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.3	97.8	100.7	104.0	95.4	101.5	98.6	103.0
1969	101.3	93.1	101.3	101.3	99.9	108.8	99.9	108.9
1970	105.6	86.7	102.3	98.6	107.1	121.7	103.2	118.0
1971	112.2	84.2	103.3	97.8	114.7	133.2	108.6	122.7
1972	109.4	85.1	103.8	98.5	111.0	128.5	105.4	121.9
1973	110.8	83.3	105.5	98.5	112.4	133.0	105.0	126.7
1974	110.4	83.4	106.3	99.0	111.5	132.4	103.8	127.5
1975	116.0	81.0	107.5	98.3	118.0	143.3	108.0	132.7
1976	111.4	77.3	107.7	96.6	115.3	144.1	103.4	139.4
1977	119.2	76.4	107.9	96.3	123.8	155.9	110.5	141.2
1978	118.7	77.7	109.2	97.6	121.6	152.7	108.7	140.5
1979	121.1	75.9	111.2	97.7	123.9	159.6	108.9	146.5

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	47.8	80.1	54.6	72.9	65.7	59.7	87.6	68.2
1949	45.3	72.8	55.4	67.9	66.7	62.2	81.7	76.1
1950	51.7	79.1	57.5	72.9	70.8	65.4	89.9	72.7
1951	57.5	85.2	62.0	78.6	73.1	67.4	92.6	72.8
1952	59.3	86.5	64.5	80.3	73.9	68.6	91.9	74.6
1953	63.5	90.8	66.7	84.0	75.6	69.9	95.1	73.5
1954	58.9	82.7	67.7	78.5	75.0	71.2	87.0	81.8
1955	65.3	87.7	70.4	82.9	78.8	74.4	92.7	80.2
1956	65.7	88.9	73.8	84.7	77.6	73.9	89.0	83.0
1957	66.1	87.3	75.8	84.1	78.5	75.7	87.2	86.8
1958	60.3	79.9	76.3	79.0	76.4	75.5	79.1	95.5
1959	67.2	85.7	77.7	83.6	80.4	78.4	86.5	90.7
1960	67.7	85.2	78.9	83.5	81.1	79.5	85.7	92.7
1961	67.4	83.1	80.2	82.3	81.9	81.1	84.1	96.5
1962	73.3	86.8	82.1	85.6	85.7	84.4	89.3	94.5
1963	79.1	87.6	83.8	86.6	91.4	90.3	94.5	95.6
1964	84.9	89.3	86.1	88.4	96.0	95.1	98.6	96.4
1965	92.6	94.5	89.5	93.2	99.3	97.9	103.5	94.6
1966	100.0	100.7	95.0	99.2	100.8	99.3	105.2	94.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.6	101.7	103.8	102.7	102.9	103.9	101.8	102.1
1969	108.7	103.6	107.9	105.2	103.3	104.9	100.8	104.1
1970	102.6	97.5	110.5	101.3	101.2	105.2	92.8	113.3
1971	104.0	93.8	111.6	98.8	105.3	110.9	93.2	118.9
1972	113.7	98.1	113.7	102.5	110.9	115.9	100.0	116.0
1973	123.2	103.6	117.6	107.7	114.4	118.9	104.8	113.4
1974	114.9	101.6	121.7	107.2	107.2	113.1	94.4	119.8
1975	109.1	91.5	121.9	99.7	109.4	119.2	89.5	133.2
1976	119.5	96.5	124.7	104.1	114.8	123.9	95.8	129.3
1977	128.2	100.4	128.5	108.0	118.7	127.8	99.8	128.1
1978	134.5	104.1	132.7	111.9	120.1	129.1	101.3	127.4
1979	139.4	106.0	137.1	114.4	121.8	131.5	101.7	129.3

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Nonfarm, Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	47.6	85.7	61.9	77.9	61.0	55.5	76.8	72.3
1949	47.5	84.3	63.4	77.4	61.3	56.3	74.9	75.2
1950	51.2	84.5	65.8	78.3	65.4	60.6	77.8	77.8
1951	53.6	86.6	67.8	80.3	66.7	61.9	79.0	78.3
1952	55.4	86.8	69.1	80.9	68.4	63.8	80.1	79.6
1953	57.1	87.2	70.3	81.5	70.1	65.5	81.2	80.7
1954	58.0	86.5	71.7	81.5	71.2	67.1	80.9	83.0
1955	62.3	88.8	73.8	83.7	74.4	70.1	84.4	83.1
1956	65.2	91.0	76.0	85.9	75.9	71.7	85.8	83.5
1957	66.8	91.0	78.2	86.6	77.1	73.4	85.3	86.0
1958	67.5	89.7	79.9	86.3	78.3	75.2	84.4	89.1
1959	72.0	93.0	81.6	89.0	80.8	77.4	88.2	87.7
1960	73.6	93.9	83.2	90.1	81.7	78.4	88.5	88.6
1961	75.6	93.6	84.8	90.5	83.5	80.8	89.2	90.6
1962	80.0	94.6	86.9	91.9	87.1	84.6	92.1	91.9
1963	82.5	95.3	89.0	93.1	88.6	86.6	92.7	93.4
1964	86.9	97.3	91.4	95.3	91.2	89.3	95.1	93.9
1965	92.3	99.8	94.0	97.8	94.5	92.5	98.2	94.2
1966	97.0	101.0	97.3	99.7	97.2	96.0	99.6	96.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.3	100.3	103.2	101.4	103.8	105.0	102.0	102.9
1969	108.8	107.7	107.2	107.6	101.1	101.0	101.5	99.5
1970	110.5	106.0	110.4	107.6	102.7	104.3	100.1	104.1
1971	114.2	106.7	113.8	109.2	104.5	107.0	100.3	106.6
1972	120.9	109.9	117.5	112.6	107.3	110.0	102.8	107.0
1973	126.9	113.6	121.4	116.4	109.0	111.7	104.5	106.9
1974	127.2	114.4	124.1	117.9	107.9	111.2	102.5	108.5
1975	126.6	114.5	125.3	118.3	107.0	110.6	101.0	109.5
1976	133.5	126.7	127.6	127.1	105.0	105.4	104.6	100.7
1977	140.8	131.5	130.1	131.1	107.4	107.0	108.2	98.9
1978	148.8	137.3	133.1	135.9	109.4	108.3	111.8	96.9
1979	150.4	144.6	136.0	141.6	106.2	104.1	110.6	94.1

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	67.9	150.8	96.8	127.6	53.2	45.0	70.2	64.2
1949	59.7	130.4	95.5	115.3	51.8	45.8	62.6	73.2
1950	66.9	131.9	99.8	118.0	56.7	50.7	67.0	75.7
1951	73.2	137.4	99.7	121.2	60.4	53.2	73.4	72.6
1952	72.3	133.5	98.1	118.2	61.1	54.1	73.7	73.5
1953	73.9	129.7	89.6	112.4	65.8	57.0	82.6	69.0
1954	71.7	118.6	90.6	106.5	67.3	60.4	79.1	76.4
1955	79.8	125.0	96.3	112.6	70.9	63.8	82.9	77.0
1956	84.1	130.1	95.5	115.2	73.1	64.7	88.1	73.4
1957	83.9	128.9	99.5	116.2	72.2	65.1	84.4	77.1
1958	77.3	114.0	102.3	108.9	71.0	67.8	75.5	89.8
1959	80.8	116.0	108.2	112.6	71.8	69.6	74.7	93.3
1960	82.0	112.8	111.2	112.1	73.1	72.7	73.7	98.6
1961	82.4	107.2	117.1	111.6	73.9	76.9	70.4	109.2
1962	84.8	104.8	117.8	110.5	76.7	80.9	72.0	112.4
1963	88.5	102.3	104.2	103.1	85.8	86.5	85.0	101.8
1964	90.8	103.4	102.6	103.1	88.1	87.8	88.5	99.2
1965	93.7	103.1	96.7	100.3	93.4	90.9	96.9	93.8
1966	98.2	102.7	102.5	102.6	95.7	95.6	95.9	99.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.4	98.3	102.8	99.4	104.0	105.2	100.5	104.6
1969	106.5	101.0	111.9	104.9	101.5	105.4	95.1	110.8
1970	108.9	100.3	111.8	104.5	104.2	108.5	97.4	111.4
1971	106.1	97.6	112.5	103.2	102.8	108.7	94.3	115.3
1972	108.1	100.4	114.0	105.4	102.5	107.6	94.8	113.5
1973	109.5	103.7	116.1	108.2	101.2	105.6	94.4	111.9
1974	108.7	111.5	117.1	113.2	96.0	97.4	92.8	105.0
1975	108.3	119.1	118.0	118.1	91.7	90.9	91.7	99.1
1976	109.8	126.7	119.1	122.9	89.3	86.7	92.2	94.0
1977	113.4	133.4	120.9	127.6	88.8	85.0	93.8	90.6
1978	118.8	138.1	122.1	130.9	90.8	86.0	97.3	88.4

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	44.6	76.4	31.1	73.5	60.7	58.4	143.6	40.7
1949	44.6	75.6	32.8	73.0	61.1	59.0	136.0	43.3
1950	49.2	78.9	36.7	76.3	64.4	62.3	134.0	46.5
1951	54.6	86.5	41.6	83.8	65.2	63.2	131.3	48.1
1952	56.9	88.4	44.7	85.8	66.3	64.4	127.2	50.6
1953	58.6	86.4	45.8	84.0	69.7	67.8	127.9	53.0
1954	60.4	84.9	47.3	82.7	73.1	71.2	127.8	55.7
1955	64.2	89.6	48.7	87.2	73.6	71.6	131.7	54.3
1956	68.7	95.6	51.8	93.1	73.8	71.9	132.6	54.2
1957	68.8	93.0	55.9	90.9	75.7	74.0	123.1	60.1
1958	70.9	89.4	58.8	87.8	80.8	79.3	120.6	65.7
1959	76.5	94.7	62.6	93.0	82.2	80.8	122.1	66.1
1960	77.5	92.5	65.9	91.1	85.0	83.7	117.5	71.2
1961	78.3	91.4	70.3	90.2	86.8	85.7	111.4	77.0
1962	81.2	93.2	74.9	92.2	88.0	87.1	108.3	80.4
1963	83.7	95.8	80.8	95.0	88.1	87.4	103.6	84.4
1964	90.2	98.4	85.7	97.8	92.3	91.7	105.3	87.1
1965	95.8	101.4	91.0	100.9	94.9	94.4	105.2	89.7
1966	99.2	104.1	95.1	103.7	95.7	95.2	104.3	91.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.1	98.9	103.5	99.7	105.4	106.3	101.5	104.7
1969	102.9	107.7	109.9	108.5	94.8	95.5	93.6	102.0
1970	96.0	105.8	113.7	107.0	89.7	90.7	84.4	107.5
1971	96.1	109.1	117.3	110.3	87.0	88.0	81.9	107.5
1972	97.5	114.0	122.5	115.2	84.6	85.5	79.6	107.5
1973	98.1	120.2	125.4	121.2	80.9	81.6	78.2	104.3
1974	94.1	119.5	126.3	120.7	78.0	78.8	74.5	105.7
1975	83.8	106.2	123.4	108.1	77.5	78.9	67.9	116.2
1976	90.4	110.6	121.3	112.0	80.7	81.8	74.6	109.7
1977	95.2	117.9	119.3	118.6	80.3	80.7	79.8	101.2
1978	99.6	131.9	117.2	131.4	75.8	75.5	85.0	88.9

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	66.6	127.6	81.3	118.3	56.3	52.2	81.9	63.7
1949	58.5	116.6	83.5	109.9	53.2	50.2	70.1	71.7
1950	64.5	115.5	86.3	109.6	58.9	55.9	74.7	74.8
1951	71.5	120.3	88.9	114.0	62.8	59.5	80.5	73.8
1952	69.4	117.5	90.7	112.1	61.8	59.0	76.5	77.2
1953	69.9	117.0	92.4	112.0	62.4	59.8	75.7	79.0
1954	66.7	109.1	94.4	106.2	62.8	61.1	70.6	86.5
1955	72.6	112.0	96.6	108.9	66.6	64.8	75.1	86.3
1956	76.4	112.9	98.2	110.0	69.4	67.7	77.7	87.0
1957	75.6	110.1	99.5	108.0	70.0	68.7	76.0	90.4
1958	70.5	101.1	100.2	100.9	69.8	69.8	70.4	99.1
1959	74.3	104.0	99.6	103.2	72.1	71.5	74.6	95.8
1960	75.8	102.9	98.2	102.0	74.4	73.7	77.2	95.5
1961	75.1	100.1	97.5	99.6	75.5	75.1	77.0	97.5
1962	78.4	100.5	97.8	100.0	78.5	78.1	80.2	97.3
1963	82.6	100.3	98.2	99.9	82.7	82.3	84.1	97.9
1964	85.5	101.8	98.3	101.2	84.6	84.0	87.0	96.5
1965	93.2	104.9	98.8	103.7	89.9	88.9	94.4	94.1
1966	100.4	107.2	99.5	105.7	94.9	93.6	100.9	92.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.7	107.4	100.4	106.0	100.7	99.4	106.3	93.5
1969	108.4	109.4	100.9	107.8	100.6	99.1	107.5	92.2
1970	107.6	107.9	101.1	106.5	101.0	99.7	106.5	93.7
1971	106.6	105.4	100.7	104.5	102.0	101.1	105.8	95.6
1972	113.6	107.7	100.7	106.4	106.8	105.4	112.8	93.5
1973	124.3	111.2	100.5	109.1	113.9	111.7	123.7	90.4
1974	124.0	110.1	100.3	108.2	114.6	112.6	123.6	91.1
1975	115.4	103.9	99.7	103.1	111.9	111.1	115.7	96.0
1976	119.4	106.2	99.3	104.9	113.9	112.4	120.3	93.4
1977	125.3	109.7	98.6	107.5	116.6	114.2	127.1	89.9
1978	134.0	113.7	98.0	110.6	121.2	117.9	136.7	86.3

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	96.8	234.9	97.0	204.3	47.4	41.2	99.8	41.3
1949	80.4	200.2	98.1	177.6	45.2	40.1	81.9	49.0
1950	87.4	190.2	99.7	170.2	51.3	46.0	87.7	52.4
1951	98.3	199.1	101.1	177.5	55.4	49.4	97.2	50.8
1952	94.1	190.4	102.3	171.0	55.0	49.4	92.0	53.7
1953	91.6	187.3	103.7	168.9	54.2	48.9	88.4	55.3
1954	82.7	166.2	105.3	152.9	54.1	49.8	78.5	63.4
1955	91.5	169.3	106.6	155.6	58.8	54.1	85.8	63.0
1956	93.7	166.4	107.2	153.5	61.0	56.3	87.3	64.5
1957	88.2	156.7	107.5	146.1	60.4	56.3	82.1	68.6
1958	78.4	133.5	107.6	128.1	61.2	58.7	72.9	80.6
1959	82.1	129.9	107.0	125.1	65.6	63.2	76.7	82.4
1960	81.1	123.8	105.5	120.0	67.6	65.5	76.9	85.2
1961	80.4	115.8	104.1	113.4	70.9	69.4	77.2	89.8
1962	83.4	113.7	103.0	111.5	74.8	73.3	80.9	90.6
1963	87.6	110.9	101.8	109.0	80.3	79.0	86.0	91.9
1964	91.4	110.2	101.2	108.3	84.4	82.9	90.3	91.9
1965	98.7	107.4	100.8	106.0	93.2	92.0	98.0	93.8
1966	105.6	105.6	100.6	104.6	101.0	99.9	105.0	95.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	98.3	97.2	99.2	97.0	101.3	101.1	99.0	102.1
1969	100.9	95.1	98.7	95.3	105.9	106.1	102.3	103.8
1970	95.5	92.8	98.0	93.3	102.4	103.0	97.5	105.6
1971	85.7	86.6	97.2	88.4	96.9	98.9	88.2	112.2
1972	86.5	84.5	96.5	86.6	99.9	102.4	89.7	114.2
1973	95.8	85.3	95.7	87.0	110.1	112.4	100.2	112.2
1974	92.0	85.9	95.2	87.4	105.3	107.1	96.7	110.7
1975	80.1	79.5	94.4	82.3	97.4	100.8	84.9	118.7
1976	85.4	78.7	93.6	81.5	104.8	108.5	91.3	118.8
1977	84.6	79.4	92.8	81.8	103.4	106.6	91.2	116.9
1978	88.3	78.2	92.1	80.8	109.3	112.9	95.9	117.7

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	54.1	88.6	37.2	79.4	68.1	61.1	145.5	42.0
1949	49.5	86.2	42.3	78.3	63.1	57.4	116.8	49.1
1950	55.0	88.3	48.7	81.2	67.7	62.3	113.0	55.1
1951	60.4	91.7	54.3	85.0	71.1	65.9	111.4	59.2
1952	59.1	91.0	58.0	85.1	69.4	64.9	101.9	63.7
1953	60.9	91.4	60.8	85.8	71.0	66.6	100.6	66.3
1954	60.0	88.4	63.5	83.9	71.5	67.9	94.4	71.9
1955	64.7	91.2	68.0	86.9	74.4	71.0	95.2	74.6
1956	69.2	93.4	72.8	89.7	77.1	74.0	95.1	77.9
1957	70.4	93.2	77.0	90.2	78.0	75.5	91.3	82.7
1958	67.2	89.3	79.3	87.4	76.9	75.3	84.8	88.8
1959	71.1	94.6	78.7	91.7	77.6	75.2	90.4	83.2
1960	73.7	95.3	77.8	92.1	80.0	77.3	94.7	81.7
1961	73.0	94.3	79.1	91.5	79.7	77.4	92.3	83.9
1962	76.4	95.7	83.2	93.4	81.8	79.8	91.8	86.9
1963	80.5	96.5	87.8	94.9	84.9	83.5	91.7	91.0
1964	83.1	98.8	90.1	97.2	85.5	84.1	92.3	91.2
1965	91.0	104.0	93.1	102.0	89.2	87.5	97.7	89.5
1966	98.2	107.8	96.4	105.7	92.9	91.1	101.8	89.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.2	111.1	103.7	109.6	100.6	99.2	106.3	93.3
1969	111.6	114.7	107.1	113.1	98.6	97.3	104.1	93.4
1970	112.6	113.4	109.8	112.6	100.0	99.3	102.5	96.8
1971	115.2	112.2	110.8	111.9	103.0	102.7	104.0	98.7
1972	124.9	116.2	112.7	115.4	108.2	107.5	110.8	97.0
1973	136.1	120.7	114.1	119.3	114.1	112.8	119.3	94.5
1974	137.2	118.8	114.8	118.0	116.3	115.5	119.5	96.6
1975	130.0	112.7	114.7	113.0	115.0	115.3	113.3	101.7
1976	133.5	116.2	115.4	116.0	115.1	114.9	115.8	99.2
1977	142.3	120.8	115.0	119.5	119.0	117.8	123.7	95.2
1978	153.0	126.5	114.8	124.2	123.2	120.9	133.3	90.7

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	28.8	92.3	34.9	72.8	39.6	31.3	82.7	37.8
1949	30.2	89.0	36.3	70.8	42.7	34.0	83.2	40.8
1950	31.7	85.6	37.9	68.9	46.1	37.1	83.8	44.2
1951	35.0	87.4	39.9	70.6	49.6	40.1	87.8	45.6
1952	37.2	89.2	42.7	72.6	51.2	41.6	87.0	47.8
1953	40.6	92.4	45.1	75.4	53.9	44.0	90.1	48.8
1954	41.5	91.0	47.5	75.0	55.4	45.6	87.5	52.2
1955	45.6	91.0	49.7	75.5	60.4	50.1	91.9	54.6
1956	48.4	93.6	53.1	78.2	61.9	51.7	91.2	56.7
1957	51.9	92.9	57.1	78.7	65.9	55.8	90.9	61.4
1958	53.7	87.4	60.0	75.6	71.0	61.4	89.6	68.6
1959	57.8	86.7	62.5	75.7	76.3	66.7	92.4	72.1
1960	61.1	87.6	65.8	77.7	78.7	69.8	92.9	75.1
1961	63.9	86.1	69.5	78.5	81.4	74.3	92.0	80.7
1962	68.7	86.6	73.1	80.5	85.3	79.2	93.9	84.4
1963	73.6	86.7	76.9	82.3	89.5	84.9	95.7	88.7
1964	78.4	89.6	81.8	86.0	91.2	87.6	95.9	91.3
1965	85.2	93.8	87.5	90.9	93.8	90.9	97.5	93.2
1966	93.1	98.5	93.8	96.3	96.7	94.6	99.3	95.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.9	102.2	106.1	102.4	104.4	104.7	100.8	103.9
1969	119.5	110.3	113.1	110.0	108.7	108.3	105.7	102.5
1970	128.9	116.0	121.7	116.9	110.3	111.1	106.0	104.9
1971	134.8	113.1	130.0	119.3	113.0	119.2	103.7	114.9
1972	147.8	118.6	138.3	126.1	117.2	124.6	106.8	116.6
1973	161.3	122.0	147.0	131.9	122.3	132.2	109.7	120.4
1974	169.2	123.8	156.1	137.0	123.5	136.7	108.4	126.1
1975	183.3	120.1	162.3	138.1	132.7	152.6	112.9	135.1
1976	198.7	119.3	168.1	140.4	141.6	166.5	118.3	140.8
1977	213.9	123.1	175.0	145.6	146.9	173.8	122.2	142.2
1978	238.8	129.0	183.3	152.5	156.5	185.1	130.2	142.1

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	27.1	92.1	46.2	68.0	39.9	29.5	58.7	50.2
1949	30.0	92.5	48.6	69.4	43.3	32.5	61.7	52.6
1950	32.2	92.8	51.5	70.9	45.4	34.7	62.6	55.5
1951	37.3	92.6	54.8	72.4	51.5	40.3	68.0	59.2
1952	40.0	92.2	57.8	73.7	54.4	43.4	69.3	62.6
1953	43.0	92.7	61.3	75.6	56.8	46.3	70.1	66.1
1954	47.2	92.5	64.0	76.8	61.4	51.0	73.7	69.2
1955	49.8	93.0	66.9	78.5	63.4	53.6	74.4	72.0
1956	53.4	92.5	69.5	79.6	67.2	57.8	76.8	75.2
1957	56.7	93.4	73.2	81.8	69.3	60.6	77.4	78.3
1958	58.9	93.2	77.4	83.7	70.3	63.2	76.1	83.0
1959	64.3	93.7	79.4	84.9	75.7	68.6	81.0	84.7
1960	69.0	94.2	82.7	87.1	79.2	73.3	83.5	87.8
1961	72.7	93.8	84.4	88.0	82.6	77.5	86.1	90.0
1962	76.0	93.5	85.8	88.7	85.6	81.3	88.6	91.8
1963	79.9	94.8	87.6	90.4	88.4	84.3	91.2	92.4
1964	85.2	94.8	89.9	91.8	92.8	89.8	94.7	94.8
1965	89.4	97.3	92.5	94.4	94.7	91.8	96.6	95.1
1966	95.1	98.2	95.9	96.8	98.3	96.9	99.2	97.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.2	101.3	104.7	103.7	104.4	106.8	103.4	103.3
1969	115.0	104.7	110.0	108.2	106.2	109.8	104.5	105.1
1970	118.2	107.8	115.6	112.9	104.7	109.6	102.2	107.3
1971	124.9	107.0	121.9	116.5	107.2	116.7	102.4	113.9
1972	128.8	109.3	128.8	121.6	106.0	117.8	100.1	117.8
1973	137.8	112.3	135.8	127.0	108.5	122.7	101.5	120.9
1974	130.1	113.2	141.9	131.2	99.2	114.9	91.7	125.4
1975	138.3	110.5	146.2	132.8	104.2	125.1	94.6	132.3
1976	140.2	110.9	150.7	135.7	103.4	126.5	93.0	136.0
1977	144.3	113.1	155.6	139.5	103.4	127.6	92.7	137.6
1978	149.1	119.2	161.4	145.4	102.5	125.1	92.4	135.3

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	49.8	84.2	49.9	77.8	63.9	59.1	99.8	59.2
1949	49.7	84.6	52.4	78.7	63.1	58.7	94.8	62.0
1950	54.4	85.0	57.8	80.2	67.9	64.0	94.1	68.0
1951	55.0	86.6	61.3	82.2	66.9	63.5	89.7	70.8
1952	56.7	86.5	63.1	82.5	68.6	65.5	89.8	72.9
1953	58.5	87.4	64.2	83.4	70.0	66.9	91.1	73.4
1954	58.9	87.8	64.7	83.9	70.2	67.1	91.0	73.7
1955	64.2	90.0	68.0	86.3	74.3	71.3	94.4	75.6
1956	66.1	92.0	71.1	88.6	74.6	71.8	92.9	77.3
1957	67.1	92.0	73.9	89.2	75.3	73.0	90.9	80.3
1958	67.1	91.2	74.9	88.8	75.6	73.6	89.6	82.1
1959	72.0	94.4	77.0	91.8	78.5	76.3	93.6	81.5
1960	73.3	95.6	78.7	93.1	78.8	76.7	93.1	82.3
1961	74.1	95.0	79.3	92.6	80.0	78.0	93.5	83.5
1962	78.8	95.7	81.7	93.6	84.2	82.3	96.5	85.3
1963	81.8	95.1	84.9	93.6	87.5	86.0	96.4	89.2
1964	86.8	98.1	87.8	96.5	89.9	88.5	98.9	89.5
1965	92.5	100.6	91.5	99.3	93.1	91.9	101.1	90.9
1966	97.6	100.9	97.1	100.4	97.3	96.7	100.6	96.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.1	99.3	103.2	99.7	106.5	106.9	102.9	103.9
1969	108.5	108.5	106.6	108.0	100.5	100.0	101.8	98.2
1970	110.9	104.3	109.2	104.8	105.8	106.4	101.6	104.7
1971	116.2	106.0	113.7	107.0	108.5	109.6	102.2	107.2
1972	125.1	108.8	118.1	110.0	113.7	114.9	105.9	108.5
1973	131.9	111.5	123.2	113.1	116.6	118.3	107.0	110.5
1974	128.0	111.4	126.2	113.5	112.7	114.9	101.4	113.3
1975	128.3	110.9	123.9	112.7	113.8	115.7	103.5	111.8
1976	136.2	114.3	128.6	116.3	117.1	119.2	105.9	112.6
1977	141.8	117.5	134.4	119.9	118.3	120.7	105.5	114.4
1978	148.7	121.2	139.9	123.9	120.0	122.7	106.3	115.5

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	50.5	59.8	37.0	55.3	91.4	84.5	136.6	61.8
1949	52.9	60.6	37.8	56.1	94.3	87.3	139.9	62.4
1950	55.0	62.1	39.1	57.6	95.6	88.6	140.9	62.9
1951	57.2	63.9	40.3	59.2	96.6	89.5	141.9	63.1
1952	60.4	66.3	42.9	61.6	98.0	91.1	140.9	64.6
1953	63.1	68.5	47.1	64.2	98.4	92.1	134.2	68.7
1954	66.2	71.2	47.5	66.4	99.7	93.1	139.4	66.7
1955	70.6	74.1	51.3	69.5	101.6	95.3	137.7	69.2
1956	74.2	75.5	54.6	71.2	104.2	98.3	135.8	72.4
1957	77.4	76.7	57.6	72.8	106.3	100.8	134.4	75.0
1958	78.0	78.9	60.5	75.0	103.9	98.9	128.9	76.7
1959	78.3	81.6	64.3	78.0	100.4	95.9	121.7	78.8
1960	81.5	84.4	67.7	80.9	100.7	96.5	120.4	80.2
1961	85.1	86.2	71.9	83.2	102.3	98.7	118.4	83.4
1962	95.2	88.9	76.1	86.2	110.5	107.1	125.1	85.6
1963	87.6	90.6	80.7	88.5	99.0	96.8	108.6	89.1
1964	87.6	93.6	84.9	91.8	95.4	93.6	103.2	90.7
1965	95.2	96.0	89.5	94.6	100.6	99.2	106.4	93.2
1966	95.6	97.1	94.1	96.5	99.1	98.4	101.5	97.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.9	104.9	105.5	104.1	102.7	101.9	101.3	100.6
1969	113.0	110.6	112.3	110.0	102.7	102.2	100.7	101.5
1970	117.4	112.8	119.0	113.0	104.0	104.1	98.7	105.5
1971	118.5	115.5	127.0	116.4	101.8	102.6	93.3	110.0
1972	122.3	118.9	134.6	120.5	101.5	102.9	90.9	113.2
1973	119.4	123.7	142.2	125.7	95.0	96.6	84.0	114.9
1974	130.6	127.0	151.0	129.9	100.6	102.9	86.5	118.9
1975	134.9	142.1	158.9	143.7	93.8	94.9	84.9	111.8
1976	137.6	144.8	166.3	147.1	93.6	95.1	82.8	114.9
1977	143.6	150.7	173.8	153.3	93.7	95.3	82.6	115.3
1978	151.3	157.9	183.1	160.7	94.1	95.8	82.6	116.0

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios

(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	38.7	99.8	71.8	74.3	52.1	38.8	54.0	71.9
1949	41.5	101.7	72.5	75.1	55.2	40.8	57.2	71.3
1950	44.4	99.5	73.7	75.9	58.5	44.6	60.3	74.0
1951	45.9	95.7	74.7	76.4	60.0	47.9	61.4	78.1
1952	49.2	92.2	75.1	76.3	64.4	53.3	65.4	81.4
1953	51.1	94.4	75.8	77.2	66.1	54.1	67.3	80.3
1954	53.6	96.5	76.9	78.4	68.4	55.5	69.7	79.7
1955	56.4	97.2	77.9	79.3	71.0	58.0	72.3	80.1
1956	58.7	96.7	79.6	80.8	72.7	60.7	73.8	82.3
1957	61.7	100.1	81.1	82.4	74.8	61.6	76.0	81.0
1958	65.1	102.1	82.1	83.5	78.0	63.8	79.4	80.4
1959	69.6	103.8	83.4	84.9	81.9	67.0	83.4	80.3
1960	72.2	105.5	84.8	86.3	83.6	68.4	85.1	80.4
1961	75.8	106.3	86.5	87.9	86.2	71.4	87.7	81.4
1962	80.7	103.7	88.6	89.7	89.9	77.8	91.1	85.4
1963	83.4	127.5	91.0	93.7	89.0	65.4	91.6	71.4
1964	87.3	127.6	93.4	95.9	91.1	68.4	93.5	73.2
1965	92.4	121.3	95.9	97.8	94.6	76.2	96.4	79.1
1966	96.5	101.9	98.0	98.3	98.1	94.6	98.4	96.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.9	88.9	102.5	107.1	97.0	116.9	101.4	115.3
1969	108.1	97.8	105.7	111.0	97.4	110.5	102.2	108.2
1970	110.0	92.3	108.5	113.2	97.2	119.2	101.4	117.5
1971	117.4	97.2	111.2	116.2	101.0	120.8	105.6	114.4
1972	122.6	99.9	114.3	119.5	102.6	122.7	107.2	114.4
1973	127.4	106.0	117.4	123.0	103.6	120.2	108.5	110.7
1974	132.6	112.3	118.7	124.7	106.3	118.1	111.8	105.7
1975	133.1	245.8	119.4	135.9	97.9	54.1	111.5	48.6
1976	141.7	260.1	120.5	138.0	102.6	54.5	117.6	46.3
1977	153.3	277.9	121.3	140.3	109.3	55.2	126.4	43.7
1978	160.8	312.4	122.8	144.4	111.4	51.5	131.0	39.3

TABLE V. MAJOR NONFARM, NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	51.4	78.8	49.7	69.3	74.1	65.2	103.3	63.1
1949	51.2	77.9	50.4	68.9	74.4	65.8	101.7	64.6
1950	52.8	76.7	51.3	68.3	77.2	68.8	102.9	66.8
1951	53.8	76.0	52.2	68.1	79.0	70.7	103.0	68.6
1952	55.2	76.8	52.3	68.6	80.4	71.8	105.5	68.1
1953	56.1	77.0	52.6	68.8	81.5	72.8	106.7	68.3
1954	56.0	76.9	53.0	68.9	81.3	72.9	105.7	68.9
1955	59.2	78.2	54.3	70.2	84.3	75.7	108.9	69.5
1956	62.4	79.4	56.7	71.6	87.1	78.6	110.1	71.4
1957	64.4	81.4	59.2	73.8	87.3	79.1	108.7	72.7
1958	66.2	83.8	61.4	76.1	87.0	79.0	107.8	73.3
1959	71.0	87.4	64.2	79.4	89.4	81.2	110.6	73.5
1960	71.1	89.5	67.4	81.9	86.8	79.4	105.5	75.3
1961	74.6	91.4	70.8	84.3	88.5	81.6	105.4	77.5
1962	77.4	92.6	75.0	86.5	89.5	83.6	103.3	80.9
1963	81.1	94.9	79.7	89.7	90.4	85.4	101.8	83.9
1964	86.0	94.9	84.2	91.2	94.3	90.7	102.1	88.8
1965	90.0	96.8	89.5	94.3	95.4	93.0	100.5	92.5
1966	94.6	98.9	95.4	97.7	96.8	95.7	99.2	96.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.1	98.9	107.2	100.0	103.1	104.2	96.2	108.4
1969	109.0	105.4	114.8	106.7	102.1	103.4	94.9	108.9
1970	113.4	106.0	119.0	108.5	104.6	107.0	95.3	112.3
1971	115.4	104.5	122.9	108.7	106.2	110.4	93.9	117.6
1972	124.8	107.7	127.4	112.2	111.2	115.8	97.9	118.3
1973	134.7	112.0	132.3	116.6	115.5	120.2	101.8	118.1
1974	136.9	114.7	135.9	119.5	114.5	119.3	100.7	118.5
1975	135.8	116.6	138.8	121.7	111.6	116.4	97.9	119.0
1976	142.6	120.9	142.0	125.6	113.6	118.0	100.4	117.5
1977	150.5	126.2	145.5	130.3	115.4	119.2	103.4	115.3
1978	161.0	130.5	149.4	134.4	119.9	123.4	107.8	114.5

TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	59.3	105.7	84.0	99.2	59.8	56.1	70.6	79.4
1949	57.9	103.0	87.4	98.3	58.8	56.2	66.2	84.9
1950	61.8	103.5	90.1	99.5	62.1	59.7	68.6	87.0
1951	62.6	105.7	92.5	101.8	61.5	59.2	67.6	87.5
1952	66.1	105.3	91.3	101.2	65.3	62.7	72.4	86.7
1953	70.0	104.9	90.2	100.5	69.6	66.7	77.6	86.0
1954	69.2	103.2	89.9	99.3	69.7	67.0	77.0	87.1
1955	70.8	104.1	93.0	100.8	70.2	68.0	76.1	89.3
1956	74.0	104.4	93.9	101.4	73.0	70.8	78.8	89.9
1957	76.6	101.2	93.9	99.1	77.3	75.7	81.5	92.8
1958	77.1	99.3	95.0	98.2	78.6	77.7	81.2	95.6
1959	78.4	100.8	94.9	99.1	79.1	77.8	82.7	94.1
1960	79.1	100.4	94.6	98.8	80.1	78.8	83.6	94.3
1961	80.1	99.8	95.0	98.4	81.4	80.3	84.4	95.2
1962	83.1	99.2	96.1	98.4	84.4	83.7	86.4	96.8
1963	88.8	98.6	96.3	98.0	90.7	90.1	92.2	97.6
1964	91.0	98.2	97.1	97.9	92.9	92.6	93.6	98.9
1965	93.1	99.3	95.6	98.3	94.8	93.8	97.5	96.2
1966	99.6	100.2	97.3	99.4	100.2	99.4	102.3	97.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	101.2	99.4	101.3	100.2	101.0	101.8	99.9	101.9
1969	104.7	100.1	101.8	100.8	103.8	104.6	102.8	101.7
1970	108.2	98.8	103.8	100.3	107.9	109.6	104.3	105.0
1971	108.3	96.6	105.0	98.9	109.4	112.1	103.1	108.8
1972	114.0	95.8	104.6	98.3	116.0	119.0	109.0	109.2
1973	113.1	94.3	105.3	97.3	116.2	119.9	107.3	111.7
1974	104.9	93.8	107.9	97.6	107.5	111.9	97.2	115.0
1975	115.6	90.8	108.9	95.6	120.9	127.3	106.2	119.8
1976	124.8	93.2	113.2	98.5	126.7	133.9	110.3	121.4
1977	131.4	92.6	114.6	98.4	133.6	141.9	114.6	123.8
1978	133.2	91.8	115.8	98.1	135.8	145.1	115.0	126.2

TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	65.7	131.4	79.4	103.7	63.4	50.0	82.8	60.4
1949	70.5	122.4	84.6	101.8	69.2	57.6	83.2	69.2
1950	66.8	118.1	81.2	98.0	68.1	56.5	82.2	68.8
1951	80.6	120.6	98.4	107.7	74.9	66.8	82.0	81.6
1952	78.1	122.0	99.9	109.1	71.5	64.0	78.1	81.9
1953	71.9	118.7	98.4	106.8	67.4	60.6	73.1	82.9
1954	67.5	116.8	95.1	104.2	64.7	57.8	70.9	81.4
1955	71.8	119.3	100.8	108.3	66.3	60.2	71.2	84.5
1956	76.1	116.2	94.1	103.4	73.5	65.4	80.8	81.0
1957	79.3	112.0	95.7	102.2	77.6	70.8	82.9	85.4
1958	84.6	111.1	94.4	101.1	83.6	76.1	89.6	85.0
1959	89.7	111.2	94.6	101.2	88.7	80.7	94.8	85.1
1960	92.6	108.0	98.2	102.1	90.7	85.7	94.3	90.9
1961	96.4	106.4	103.8	104.9	92.0	90.6	92.9	97.6
1962	99.8	105.1	104.5	104.7	95.3	95.0	95.5	99.4
1963	100.8	102.7	103.5	103.2	97.6	98.1	97.3	100.8
1964	96.9	104.8	104.7	104.8	92.5	92.4	92.5	99.9
1965	95.9	98.5	102.1	100.7	95.2	97.3	93.9	103.7
1966	97.4	99.4	98.5	98.8	98.6	98.0	98.9	99.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.4	96.0	97.4	97.8	104.7	106.6	105.1	101.4
1969	104.2	93.0	95.5	95.4	109.2	112.1	109.1	102.8
1970	109.6	93.9	91.3	93.2	117.7	116.8	120.1	97.3
1971	111.5	87.3	91.6	90.8	122.8	127.7	121.7	105.0
1972	115.1	84.3	97.6	93.3	123.4	136.5	118.0	115.7
1973	119.0	89.6	100.4	97.1	122.6	132.8	118.6	112.0
1974	120.9	88.4	109.5	102.3	118.2	136.7	110.4	123.8
1975	126.1	86.4	112.5	103.3	122.1	145.9	112.1	130.2
1976	132.5	86.0	112.6	103.2	128.5	154.1	117.7	130.8
1977	134.2	84.1	114.3	103.5	129.7	159.6	117.4	135.9
1978	129.9	83.2	112.9	102.3	127.0	156.1	115.0	135.7

TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	56.1	133.3	43.7	106.7	52.6	42.1	128.5	32.7
1949	51.3	114.3	49.6	95.3	53.8	44.8	103.4	43.4
1950	53.8	127.0	59.4	107.2	50.2	42.4	90.6	46.7
1951	56.4	122.6	67.9	106.9	52.8	46.0	83.1	55.4
1952	55.4	116.1	67.8	102.4	54.1	47.7	81.7	58.4
1953	54.4	115.3	71.5	102.9	52.8	47.2	76.1	62.0
1954	51.5	102.0	73.8	94.4	54.6	50.5	69.8	72.3
1955	57.3	107.5	78.3	99.7	57.4	53.3	73.1	72.8
1956	58.3	104.6	84.0	99.5	58.6	55.8	69.5	80.3
1957	57.0	97.5	82.8	94.2	60.5	58.4	68.8	84.9
1958	56.1	90.6	84.3	89.9	62.4	61.9	66.5	93.1
1959	61.2	97.6	84.3	94.7	64.6	62.7	72.6	86.3
1960	59.3	93.3	87.2	92.0	64.5	63.6	68.0	93.5
1961	59.8	91.1	87.5	90.3	66.3	65.7	68.4	96.0
1962	63.9	93.6	88.2	92.4	69.2	68.3	72.4	94.3
1963	80.9	91.7	88.1	90.9	89.0	88.3	91.8	96.1
1964	86.3	93.1	89.1	92.2	93.6	92.7	96.8	95.7
1965	94.4	98.4	91.9	97.0	97.3	95.9	102.8	93.3
1966	103.5	102.8	97.4	101.6	101.8	100.6	106.3	94.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	104.6	103.3	104.2	101.0	100.6	101.8	98.8
1969	106.9	104.2	106.1	104.5	102.3	102.5	100.8	101.7
1970	111.7	99.1	108.2	101.1	110.5	112.7	103.2	109.2
1971	113.8	98.7	109.8	101.2	112.5	115.2	103.6	111.3
1972	123.4	103.9	111.2	105.4	117.1	118.8	111.0	107.1
1973	123.6	105.2	110.0	106.2	116.4	117.4	112.3	104.5
1974	117.0	97.2	114.2	100.9	115.9	120.4	102.4	117.5
1975	108.6	87.0	110.3	92.3	117.6	124.8	98.4	126.8
1976	119.1	94.0	109.2	97.4	122.2	126.6	109.0	116.1
1977	127.3	94.2	111.5	98.0	129.9	135.2	114.2	118.4
1978	133.2	94.4	112.5	98.5	135.3	141.1	118.3	119.2

TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs Real Output	 Labor Input	 Capital Input	 Total Factor Input	Productivity Ratios Total Factor Productivity	 Output per Unit Labor	 Output per Unit Capital	 Capital Labor Ratio
1948	58.6	86.0	82.5	86.5	67.7	68.1	71.0	95.9
1949	58.3	83.7	79.4	84.1	69.4	69.7	73.5	94.8
1950	63.3	87.0	80.9	87.2	72.6	72.7	78.2	93.0
1951	67.0	86.3	77.1	86.1	77.8	77.6	86.9	89.3
1952	68.5	88.6	76.7	88.0	77.8	77.3	89.3	86.6
1953	69.2	90.3	76.2	89.4	77.3	76.6	90.7	84.4
1954	65.0	83.8	73.2	83.4	78.0	77.5	88.9	87.3
1955	69.8	88.7	73.2	87.6	79.7	78.7	95.4	82.5
1956	71.3	88.2	66.0	86.2	82.7	80.8	108.1	74.8
1957	70.3	86.5	67.2	84.9	82.8	81.2	104.6	77.6
1958	69.0	82.4	65.8	81.1	85.1	83.8	104.9	79.9
1959	73.4	89.1	66.7	87.0	84.3	82.4	110.0	74.9
1960	75.8	87.7	66.8	85.7	88.5	86.5	113.6	76.2
1961	74.5	86.1	67.8	84.4	88.3	86.6	109.9	78.8
1962	79.1	91.5	74.6	89.9	88.0	86.5	106.1	81.6
1963	81.8	92.6	78.8	91.3	89.6	88.4	103.9	85.1
1964	85.9	93.0	82.4	92.0	93.3	92.3	104.3	88.6
1965	92.6	98.6	88.3	97.7	94.8	93.9	104.8	89.6
1966	100.7	102.0	94.6	101.3	99.4	98.7	106.4	92.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.2	100.3	109.5	103.0	102.1	104.9	96.1	109.2
1969	104.0	100.3	115.6	103.6	100.3	103.7	90.0	115.2
1970	100.9	95.5	118.6	99.6	101.3	105.7	85.1	124.2
1971	103.7	94.8	125.5	99.8	103.9	109.4	82.7	132.4
1972	116.4	98.9	130.3	104.1	111.8	117.7	89.3	131.7
1973	131.9	102.3	135.7	107.8	122.3	128.9	97.1	132.7
1974	121.1	95.3	132.5	101.1	119.8	127.2	91.4	139.1
1975	121.9	86.9	127.9	93.0	131.1	140.3	95.3	147.3
1976	132.5	93.7	130.2	99.4	133.3	141.4	101.7	138.9
1977	138.2	92.9	134.7	99.2	139.3	148.8	102.5	145.1
1978	144.6	93.1	137.5	99.7	145.0	155.3	105.2	147.7

TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	61.4	130.6	168.2	141.3	43.5	47.0	36.5	128.7
1949	54.0	117.0	152.3	127.0	42.5	46.1	35.4	130.2
1950	57.6	126.9	139.5	131.2	43.9	45.4	41.3	109.9
1951	58.3	131.1	132.8	132.6	44.0	44.5	43.9	101.3
1952	57.7	125.7	123.0	126.0	45.8	45.9	46.9	97.9
1953	55.0	122.0	113.0	120.7	45.6	45.1	48.7	92.7
1954	53.1	112.4	106.6	111.8	47.5	47.3	49.8	94.9
1955	61.6	118.0	102.0	114.8	53.6	52.2	60.3	86.5
1956	61.7	114.5	99.2	111.5	55.3	53.8	62.1	86.7
1957	58.2	103.0	86.0	99.5	58.5	56.5	67.7	83.5
1958	54.1	97.9	81.4	94.5	57.2	55.2	66.4	83.1
1959	63.7	107.5	77.8	100.8	63.2	59.2	81.9	72.3
1960	60.5	101.2	78.7	96.1	63.0	59.8	76.9	77.8
1961	57.5	96.3	78.1	92.2	62.4	59.8	73.6	81.2
1962	57.9	98.0	81.0	94.1	61.6	59.1	71.5	82.7
1963	71.3	95.9	84.2	93.3	76.5	74.3	84.7	87.8
1964	87.1	99.2	88.6	96.8	90.0	87.9	98.4	89.3
1965	97.5	102.3	93.6	100.3	97.2	95.3	104.2	91.5
1966	96.0	103.5	96.8	101.9	94.2	92.8	99.2	93.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.2	99.3	102.4	101.5	104.7	107.0	103.7	103.1
1969	105.4	103.4	109.9	106.5	99.0	101.9	95.9	106.3
1970	111.3	97.0	113.2	103.1	107.9	114.7	98.3	116.7
1971	113.0	100.2	118.3	107.0	105.7	112.8	95.5	118.1
1972	123.6	110.0	125.0	115.8	106.8	112.4	98.9	113.7
1973	126.1	114.4	134.4	121.9	103.5	110.3	93.8	117.5
1974	123.5	105.1	144.9	118.9	103.9	117.5	85.2	137.9
1975	112.3	88.9	143.9	107.4	104.6	126.3	78.0	161.9
1976	125.0	102.6	147.6	117.9	106.0	121.9	84.7	143.9
1977	130.1	109.0	153.8	124.4	104.6	119.3	84.6	141.1
1978	133.0	113.4	158.8	129.0	103.1	117.3	83.7	140.1

TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	57.9	80.2	87.6	81.3	71.2	72.2	66.0	109.2
1949	54.7	71.9	84.4	73.6	74.3	76.1	64.8	117.4
1950	66.4	85.3	87.6	85.7	77.5	77.8	75.8	102.7
1951	63.3	82.7	95.4	84.4	75.0	76.6	66.3	115.4
1952	70.1	83.3	97.8	85.3	82.3	84.2	71.7	117.4
1953	68.0	85.1	97.2	86.8	78.4	79.9	70.0	114.2
1954	65.3	77.3	94.6	79.6	82.0	84.5	69.0	122.5
1955	75.9	84.7	98.2	86.6	87.6	89.6	77.3	115.9
1956	76.3	85.7	104.4	88.3	86.4	89.0	73.1	121.8
1957	72.8	83.8	79.4	83.3	87.4	86.9	91.7	94.8
1958	66.3	79.6	79.0	79.6	83.4	83.4	84.0	99.3
1959	75.8	87.6	80.1	86.7	87.4	86.5	94.6	91.4
1960	75.2	85.8	81.8	85.3	88.1	87.6	91.9	95.3
1961	71.9	82.6	78.8	82.1	87.5	87.0	91.2	95.4
1962	77.8	87.6	81.8	86.9	89.6	88.8	95.2	93.3
1963	81.0	87.4	82.5	86.8	93.3	92.7	98.2	94.4
1964	88.2	91.3	82.9	90.3	97.7	96.6	106.5	90.7
1965	99.3	97.2	89.9	96.3	103.1	102.1	110.4	92.5
1966	105.3	102.8	97.9	102.2	103.1	102.4	107.7	95.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.0	102.6	101.7	101.9	104.0	103.3	104.2	99.1
1969	114.6	104.5	108.9	104.4	109.8	109.7	105.3	104.2
1970	98.5	96.4	105.7	97.2	101.3	102.1	93.1	109.6
1971	102.5	98.9	106.5	99.4	103.2	103.7	96.3	107.7
1972	122.7	108.5	112.0	108.2	113.3	113.1	109.5	103.2
1973	129.2	113.5	118.7	113.5	113.9	113.8	108.8	104.6
1974	120.2	107.4	125.1	109.5	109.7	111.9	96.1	116.4
1975	106.0	89.2	117.7	93.2	113.8	118.9	90.1	132.0
1976	121.6	96.3	119.5	99.4	122.4	126.3	101.8	124.1
1977	125.1	103.4	123.5	105.9	118.1	121.0	101.3	119.5
1978	133.2	108.2	127.2	110.5	120.6	123.1	104.7	117.5

TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	46.9	69.8	56.6	65.2	72.0	67.2	82.9	81.1
1949	46.8	65.4	58.3	63.0	74.2	71.5	80.2	89.2
1950	60.8	72.3	60.1	68.1	89.3	84.1	101.2	83.1
1951	65.0	75.9	62.4	71.2	91.4	85.7	104.3	82.2
1952	59.9	74.2	64.2	70.8	84.6	80.7	93.3	86.5
1953	63.4	78.5	65.4	74.0	85.7	80.8	96.9	83.3
1954	65.1	77.3	67.2	73.9	88.1	84.2	96.9	86.9
1955	71.7	81.6	70.0	77.6	92.4	87.9	102.4	85.8
1956	73.8	83.6	73.2	80.1	92.2	88.3	100.9	87.5
1957	68.3	83.0	75.5	80.6	84.8	82.3	90.5	90.9
1958	68.8	81.3	76.6	79.9	86.1	84.6	89.8	94.3
1959	77.2	86.5	78.3	83.8	92.2	89.3	98.6	90.6
1960	76.0	87.1	79.4	84.5	89.8	87.2	95.6	91.2
1961	79.8	87.9	81.1	85.7	93.1	90.7	98.3	92.3
1962	83.4	90.0	82.9	87.7	95.1	92.7	100.6	92.1
1963	84.8	90.9	84.4	88.8	95.5	93.3	100.5	92.8
1964	91.2	92.0	86.2	90.1	101.2	99.1	105.8	93.7
1965	95.9	94.7	89.8	93.1	103.0	101.3	106.8	94.8
1966	102.7	99.6	95.1	98.1	104.7	103.1	108.1	95.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	110.0	102.0	102.5	102.1	107.7	107.8	107.3	100.5
1969	120.0	105.1	106.8	105.6	113.7	114.2	112.4	101.6
1970	109.6	101.8	109.2	104.0	105.5	107.7	100.4	107.3
1971	117.2	98.6	110.7	102.1	114.7	118.9	105.9	112.2
1972	131.7	101.4	111.6	104.4	126.2	129.9	118.0	110.1
1973	149.4	104.0	113.6	106.8	139.9	143.7	131.5	109.2
1974	139.6	102.4	117.8	107.0	130.5	136.2	118.5	115.0
1975	119.3	91.8	119.8	100.1	119.3	130.0	99.6	130.5
1976	134.8	98.7	123.8	106.1	127.1	136.6	108.9	125.3
1977	144.3	102.3	128.2	109.9	131.3	141.1	112.6	125.3
1978	149.1	103.7	131.4	111.9	133.3	143.8	113.4	126.8

TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	50.6	76.2	78.9	76.7	65.9	66.4	64.1	103.6
1949	53.0	74.7	78.4	75.5	70.3	71.0	67.7	104.9
1950	53.5	75.3	78.3	75.9	70.4	70.9	68.3	103.9
1951	54.6	76.9	78.0	77.2	70.8	71.0	70.0	101.5
1952	55.7	77.9	76.3	77.7	71.7	71.5	73.0	98.0
1953	58.0	80.1	74.3	79.2	73.2	72.4	78.0	92.7
1954	61.0	80.1	72.9	78.9	77.4	76.2	83.7	91.1
1955	64.9	82.8	72.7	81.1	80.1	78.5	89.3	87.9
1956	67.5	85.2	71.6	82.9	81.4	79.2	94.3	84.0
1957	68.4	85.3	70.7	82.8	82.6	80.2	96.7	82.9
1958	66.7	84.0	70.7	81.8	81.5	79.3	94.3	84.1
1959	71.2	86.7	74.2	84.5	84.3	82.2	96.0	85.6
1960	73.1	88.6	74.4	86.2	84.9	82.5	98.4	83.9
1961	74.0	88.6	76.9	86.6	85.4	83.5	96.2	86.8
1962	77.0	89.6	78.5	87.7	87.8	86.0	98.1	87.7
1963	83.6	90.3	82.2	88.9	94.0	92.6	101.7	91.0
1964	91.5	91.8	84.9	90.6	101.0	99.7	107.8	92.4
1965	94.4	95.4	88.3	94.2	100.1	98.9	106.8	92.6
1966	98.9	98.4	94.7	97.7	101.2	100.6	104.4	96.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	102.8	101.1	104.9	102.7	100.1	101.6	97.9	103.8
1969	107.9	104.0	110.0	106.0	101.8	103.8	98.1	105.8
1970	101.7	103.0	112.6	105.8	96.2	98.7	90.3	109.3
1971	102.7	100.2	116.6	104.3	98.5	102.5	88.1	116.4
1972	108.0	102.1	120.6	106.7	101.2	105.7	89.5	118.1
1973	115.0	104.6	126.4	109.9	104.7	110.0	91.0	120.8
1974	108.3	104.2	128.4	110.0	98.4	103.9	84.3	123.2
1975	104.1	101.1	128.0	107.4	96.9	103.0	81.3	126.7
1976	111.6	103.0	129.8	109.3	102.1	108.3	86.0	126.0
1977	118.1	107.3	133.9	113.6	103.9	110.0	88.2	124.8
1978	124.9	111.5	139.0	118.0	105.8	112.0	89.9	124.6

TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	30.7	66.1	39.8	54.0	56.9	46.5	77.1	60.2
1949	30.1	61.6	42.8	53.0	56.8	48.9	70.3	69.5
1950	36.0	64.4	46.0	56.0	64.4	55.9	78.3	71.3
1951	38.5	71.1	50.7	61.8	62.4	54.1	75.9	71.3
1952	38.8	72.7	55.2	64.6	60.1	53.4	70.4	75.9
1953	41.7	76.6	58.5	68.3	61.0	54.4	71.2	76.4
1954	43.8	74.7	61.4	68.6	63.8	58.7	71.3	82.3
1955	50.6	77.2	64.4	71.4	70.8	65.5	78.5	83.4
1956	52.9	79.5	68.1	74.3	71.2	66.5	77.7	85.7
1957	55.2	80.4	71.3	76.3	72.4	68.6	77.4	88.7
1958	54.2	78.4	74.1	76.5	70.9	69.1	73.2	94.5
1959	62.5	81.3	76.6	79.2	78.9	76.9	81.6	94.3
1960	62.7	83.0	79.2	81.3	77.1	75.6	79.1	95.5
1961	65.0	83.2	81.0	82.2	79.1	78.2	80.3	97.4
1962	69.9	85.6	82.5	84.2	83.1	81.7	84.8	96.4
1963	78.0	87.0	83.8	85.6	91.1	89.6	93.0	96.4
1964	84.4	88.2	86.0	87.2	96.8	95.7	98.2	97.4
1965	92.4	91.8	90.2	91.1	101.5	100.7	102.4	98.3
1966	98.8	96.9	95.7	96.4	102.5	101.9	103.2	98.8
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	113.8	103.5	103.7	103.4	110.1	110.0	109.7	100.2
1969	120.0	106.3	107.8	106.7	112.4	112.9	111.3	101.4
1970	120.9	104.7	111.7	107.3	112.7	115.4	108.2	106.6
1971	125.2	100.9	113.6	105.7	118.5	124.1	110.2	112.7
1972	136.2	100.9	114.8	106.2	128.3	134.9	118.6	113.7
1973	146.8	104.0	116.4	108.7	135.1	141.2	126.2	111.9
1974	136.7	105.5	121.6	111.6	122.5	129.6	112.4	115.3
1975	134.3	99.6	124.3	109.0	123.2	134.8	108.0	124.8
1976	148.4	103.9	130.1	113.9	130.3	142.8	114.1	125.2
1977	158.0	107.0	137.1	118.5	133.3	147.7	115.2	128.2
1978	164.7	109.2	144.9	122.9	134.0	150.8	113.7	132.7

TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	50.2	119.1	62.6	80.7	62.2	42.1	80.1	52.6
1949	50.4	114.6	65.6	81.7	61.7	44.0	76.7	57.3
1950	57.6	114.4	66.0	81.9	70.4	50.4	87.4	57.7
1951	58.3	121.2	68.8	85.9	67.9	48.1	84.8	56.7
1952	58.9	122.1	72.4	88.8	66.3	48.3	81.4	59.3
1953	62.6	126.2	76.7	93.3	67.1	49.6	81.6	60.8
1954	61.0	124.5	79.3	94.8	64.3	49.0	76.9	63.7
1955	68.9	124.6	81.8	96.7	71.2	55.2	84.1	65.7
1956	70.6	124.2	84.8	98.8	71.5	56.9	83.3	68.3
1957	69.9	121.9	90.6	102.6	68.1	57.3	77.1	74.3
1958	69.3	117.8	89.1	100.2	69.2	58.9	77.8	75.6
1959	77.1	114.3	88.6	98.9	78.0	67.5	87.0	77.5
1960	78.8	112.2	87.4	97.3	81.0	70.3	90.2	77.9
1961	82.1	107.2	89.4	96.5	85.1	76.6	91.9	83.3
1962	88.0	104.7	91.1	96.5	91.2	84.1	96.7	86.9
1963	91.2	100.5	91.7	95.2	95.8	90.8	99.5	91.3
1964	93.1	97.7	92.2	94.4	98.6	95.3	101.0	94.4
1965	97.6	98.4	93.8	95.7	102.1	99.2	104.1	95.3
1966	100.0	100.3	95.6	97.5	102.6	99.8	104.6	95.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	108.0	100.9	104.1	104.9	102.9	107.0	103.8	103.1
1969	109.4	98.7	107.4	106.0	103.2	110.9	101.9	108.8
1970	116.0	104.0	111.4	110.5	105.0	111.6	104.2	107.1
1971	119.3	106.1	114.8	113.5	105.1	112.5	104.0	108.2
1972	122.9	106.0	115.8	114.2	107.6	115.9	106.1	109.2
1973	129.0	104.3	117.0	114.4	112.8	123.7	110.3	112.2
1974	125.2	105.4	122.5	118.4	105.7	118.8	102.2	116.2
1975	126.2	101.8	126.3	119.6	105.5	124.0	100.0	124.0
1976	134.3	106.2	131.4	124.6	107.8	126.4	102.2	123.7
1977	158.6	109.8	134.4	127.8	124.1	144.5	118.0	122.4
1978	159.9	115.7	136.9	131.6	121.5	138.2	116.8	118.3

TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	37.2	57.7	44.3	54.6	68.1	64.5	83.9	76.9
1949	34.0	51.3	46.0	50.0	68.0	66.4	74.0	89.6
1950	39.6	60.0	42.3	56.0	70.8	66.0	93.6	70.5
1951	49.3	64.0	50.3	60.8	81.1	77.1	98.1	78.6
1952	49.1	64.9	54.5	62.5	78.6	75.7	90.1	84.0
1953	49.3	68.5	57.9	66.1	74.7	72.0	85.1	84.6
1954	44.5	61.4	59.3	60.9	73.0	72.4	75.1	96.5
1955	49.5	71.3	60.7	68.8	72.0	69.5	81.7	85.1
1956	48.5	70.0	64.1	68.6	70.6	69.2	75.6	91.6
1957	48.2	70.9	66.2	69.8	69.1	68.0	72.8	93.4
1958	46.7	63.4	68.6	64.6	72.3	73.7	68.0	108.3
1959	58.6	72.2	71.4	72.0	81.3	81.1	82.0	98.9
1960	58.7	70.9	75.2	72.0	81.5	82.7	78.0	105.9
1961	61.6	71.0	76.8	72.4	85.1	86.8	80.2	108.2
1962	70.5	78.5	79.4	78.7	89.5	89.8	88.7	101.2
1963	77.1	80.1	80.6	80.2	96.2	96.3	95.7	100.6
1964	83.5	84.6	84.3	84.5	98.8	98.7	99.0	99.7
1965	90.8	92.8	88.5	91.7	99.0	97.8	102.5	95.4
1966	98.3	100.5	93.4	98.7	99.6	97.9	105.2	93.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	113.0	109.1	107.2	108.2	104.4	103.6	105.4	98.2
1969	125.0	115.0	114.7	114.4	109.2	108.7	109.0	99.7
1970	112.9	109.3	119.9	111.2	101.5	103.2	94.1	109.6
1971	121.0	109.5	123.0	112.0	108.1	110.5	98.4	112.3
1972	135.2	120.9	130.1	122.4	110.5	111.8	104.0	107.5
1973	153.0	132.9	140.5	134.0	114.2	115.1	108.8	105.8
1974	138.0	131.4	145.6	133.9	103.0	105.0	94.8	110.8
1975	129.6	113.4	143.5	119.5	108.5	114.3	90.3	126.6
1976	142.7	122.2	145.5	126.8	112.5	116.7	98.1	119.0
1977	153.6	136.0	152.2	138.9	110.6	113.0	100.9	112.0
1978	165.6	142.9	157.3	145.4	113.9	115.9	105.3	110.1

TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	98.0	115.0	87.0	111.1	88.2	85.2	112.6	75.6
1949	87.1	106.8	85.9	104.2	83.5	81.5	101.3	80.4
1950	86.5	111.4	110.9	112.8	76.7	77.7	78.0	99.6
1951	92.6	105.1	94.7	104.5	88.6	88.1	97.8	90.1
1952	81.6	110.6	109.9	111.9	72.9	73.8	74.3	99.4
1953	86.4	109.9	109.5	111.3	77.6	78.6	78.9	99.6
1954	79.4	103.2	109.6	105.8	75.1	77.0	72.5	106.2
1955	83.5	109.6	116.0	112.3	74.3	76.2	71.9	105.9
1956	84.0	107.8	82.2	104.3	80.5	77.9	102.2	76.2
1957	82.3	104.5	83.2	101.8	80.9	78.7	98.8	79.7
1958	77.7	98.8	82.1	96.9	80.2	78.7	94.7	83.1
1959	93.1	106.2	91.8	104.8	88.7	87.6	101.4	86.4
1960	86.8	100.5	92.9	99.8	87.0	86.4	93.5	92.4
1961	85.9	100.5	91.1	99.6	86.2	85.4	94.2	90.7
1962	93.9	101.7	91.5	100.7	93.3	92.4	102.7	90.0
1963	95.6	99.3	92.7	98.7	96.8	96.2	103.1	93.3
1964	98.0	98.1	93.0	97.6	100.5	100.0	105.4	94.8
1965	103.0	100.6	92.8	99.8	103.2	102.5	111.0	92.3
1966	108.5	105.1	96.3	104.2	104.1	103.3	112.7	91.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.9	101.4	103.1	100.5	103.3	102.4	100.7	101.7
1969	100.4	95.0	104.3	94.9	105.8	105.7	96.3	109.8
1970	93.4	88.9	103.5	89.6	104.3	105.1	90.3	116.4
1971	89.5	84.3	100.6	85.3	104.9	106.1	88.9	119.3
1972	89.4	84.4	94.5	84.6	105.7	105.9	94.6	112.0
1973	97.2	80.0	98.9	81.4	119.5	121.5	98.3	123.6
1974	90.0	74.4	100.1	76.8	117.3	120.9	89.9	134.5
1975	85.9	68.4	94.7	70.9	121.2	125.6	90.7	138.4
1976	94.0	73.2	92.2	74.7	126.0	128.5	102.0	126.0
1977	90.5	70.6	92.8	72.5	124.8	128.2	97.5	131.5
1978	91.5	70.9	94.5	73.0	125.3	129.1	96.7	133.4

TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	57.6	86.8	48.0	75.6	76.2	66.4	120.0	55.3
1949	53.7	79.4	49.2	70.5	76.2	67.7	109.1	62.0
1950	64.3	87.2	51.5	76.8	83.8	73.8	124.9	59.1
1951	69.1	94.1	55.3	82.8	83.4	73.4	124.9	58.8
1952	66.3	89.9	57.1	80.2	82.7	73.8	116.2	63.5
1953	70.1	92.0	58.7	82.1	85.4	76.3	119.5	63.8
1954	68.3	86.8	60.0	78.7	86.8	78.7	113.9	69.1
1955	78.8	94.3	64.0	85.2	92.5	83.6	123.2	67.9
1956	77.6	96.2	69.4	88.0	88.1	80.6	111.7	72.2
1957	75.4	93.0	73.1	86.7	86.9	81.0	103.1	78.6
1958	73.5	87.1	75.0	82.9	88.7	84.4	98.0	86.1
1959	83.2	96.2	80.4	90.9	91.5	86.5	103.5	83.5
1960	81.7	94.8	83.1	90.9	89.9	86.2	98.3	87.7
1961	81.6	91.7	84.6	89.3	91.4	89.0	96.4	92.3
1962	86.0	93.9	85.4	91.0	94.5	91.6	100.7	90.9
1963	93.1	95.4	87.9	92.9	100.2	97.6	105.9	92.2
1964	99.6	98.4	90.3	95.7	104.0	101.2	110.3	91.7
1965	103.2	101.2	92.0	98.1	105.1	102.0	112.1	90.9
1966	104.0	103.7	96.7	101.3	102.6	100.3	107.5	93.3
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.4	101.5	100.1	101.0	102.4	101.9	103.2	98.7
1969	109.6	104.8	103.4	104.3	105.1	104.6	106.0	98.7
1970	104.0	101.0	106.2	102.2	101.7	102.9	97.9	105.2
1971	105.9	102.4	106.9	103.5	102.3	103.4	99.0	104.4
1972	117.2	108.8	109.9	109.0	107.5	107.7	106.6	101.1
1973	125.8	114.5	113.2	114.0	110.3	109.9	111.2	98.9
1974	113.0	111.6	116.9	112.9	100.1	101.2	96.6	104.7
1975	103.3	97.4	115.7	102.0	101.3	106.1	89.3	118.8
1976	118.9	101.5	116.8	105.3	112.9	117.2	101.8	115.1
1977	121.9	105.8	118.8	109.1	111.7	115.2	102.5	112.3
1978	132.6	110.9	121.4	113.5	116.8	119.5	109.2	109.4

TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	72.6	95.6	49.8	81.9	88.7	76.0	146.0	52.0
1949	64.6	80.4	50.9	71.5	90.3	80.4	126.9	63.3
1950	76.4	94.0	53.0	81.7	93.5	81.3	144.1	56.4
1951	91.6	104.6	56.3	90.1	101.6	87.6	162.6	53.9
1952	81.7	96.4	60.9	85.8	95.2	84.7	134.1	63.2
1953	93.9	104.5	64.8	92.6	101.4	89.8	144.8	62.0
1954	73.4	87.2	66.4	81.0	90.6	84.1	110.5	76.1
1955	90.2	100.7	68.5	91.0	99.0	89.6	131.6	68.1
1956	89.0	102.4	73.4	93.7	95.0	87.0	121.3	71.7
1957	89.8	98.9	77.5	92.5	97.1	90.8	115.9	78.4
1958	68.2	81.6	80.9	81.4	83.8	83.6	84.2	99.2
1959	75.4	88.3	80.9	86.1	87.5	85.3	93.1	91.6
1960	74.4	88.9	83.6	87.3	85.2	83.7	89.0	94.1
1961	70.2	83.6	85.1	84.1	83.5	83.9	82.5	101.8
1962	74.9	86.7	85.5	86.3	86.8	86.4	87.6	98.6
1963	80.4	88.8	86.6	88.2	91.2	90.6	92.9	97.5
1964	90.9	95.3	88.5	93.3	97.5	95.4	102.7	92.9
1965	98.8	101.5	91.3	98.4	100.4	97.4	108.3	90.0
1966	105.3	104.8	95.8	102.1	103.1	100.5	109.9	91.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.5	100.7	103.2	100.4	99.1	98.8	96.5	102.5
1969	98.6	104.6	105.9	104.0	94.8	94.2	93.1	101.2
1970	90.2	97.7	109.0	99.5	90.6	92.3	82.8	111.6
1971	85.3	90.1	109.4	94.0	90.8	94.7	78.0	121.4
1972	92.9	93.3	110.1	96.5	96.3	99.6	84.4	118.0
1973	106.8	102.2	109.8	103.1	103.7	104.6	97.3	107.5
1974	106.4	102.9	111.8	104.1	102.2	103.5	95.2	108.7
1975	85.3	87.5	114.6	93.3	91.5	97.6	74.5	131.0
1976	85.4	90.5	116.6	96.0	88.9	94.3	73.2	128.8
1977	84.8	93.6	118.1	98.7	85.9	90.6	71.8	126.1
1978	88.5	97.1	118.4	101.4	87.2	91.1	74.7	121.9

TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs: Real Output	Labor Input	Capital Input	Total Factor Input	Productivity Ratios: Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	45.4	66.3	36.0	59.7	76.0	68.4	125.9	54.3
1949	41.5	58.2	36.7	53.5	77.6	71.4	113.3	63.0
1950	49.5	67.6	40.3	61.6	80.3	73.2	122.9	59.6
1951	54.0	75.5	45.9	69.1	78.1	71.5	117.5	60.8
1952	57.6	76.2	48.8	70.3	82.0	75.6	118.0	64.0
1953	63.5	83.7	54.8	77.4	82.0	75.9	115.9	65.4
1954	58.3	74.5	53.6	70.0	83.3	78.3	108.8	71.9
1955	62.3	79.3	60.0	75.2	82.8	78.5	103.7	75.7
1956	63.3	79.7	63.4	76.3	83.0	79.4	99.8	79.6
1957	64.6	80.6	69.9	78.4	82.4	80.2	92.5	86.7
1958	58.8	72.7	68.6	72.0	81.6	80.8	85.7	94.4
1959	65.3	77.6	71.6	76.5	85.4	84.2	91.3	92.2
1960	65.9	77.6	73.1	76.7	85.9	85.0	90.2	94.2
1961	65.6	74.5	74.1	74.4	88.2	88.1	88.6	99.4
1962	72.0	79.1	76.2	78.6	91.6	91.0	94.5	96.3
1963	74.6	81.7	79.2	81.2	91.8	91.3	94.1	97.0
1964	79.7	84.0	82.9	83.8	95.1	94.9	96.1	98.7
1965	87.7	89.9	88.5	89.6	97.9	97.7	99.1	98.5
1966	96.4	97.7	92.7	96.8	99.6	98.6	104.0	94.9
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.9	104.0	104.9	104.6	101.3	101.8	101.0	100.9
1969	109.8	107.4	108.9	108.1	101.5	102.2	100.8	101.4
1970	97.8	98.1	112.6	101.2	96.7	99.7	86.9	114.8
1971	94.5	92.5	113.6	96.8	97.6	102.1	83.1	122.8
1972	105.4	98.4	115.9	102.1	103.2	107.1	90.9	117.8
1973	115.7	106.1	122.9	109.7	105.5	109.0	94.1	115.8
1974	104.1	103.3	128.4	108.4	96.0	100.8	81.0	124.4
1975	94.5	90.6	128.1	98.0	96.5	104.3	73.8	141.4
1976	105.1	95.7	131.1	102.7	102.3	109.8	80.2	136.9
1977	114.7	100.1	134.8	106.9	107.3	114.7	85.1	134.7
1978	118.4	104.7	140.7	111.9	105.8	113.0	84.1	134.4

TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	50.8	68.3	47.1	63.6	79.9	74.3	107.8	68.9
1949	45.2	56.6	45.1	54.0	83.6	79.8	100.2	79.6
1950	47.8	61.2	47.2	58.1	82.2	78.0	101.2	77.1
1951	62.1	76.2	53.7	71.1	87.3	81.5	115.7	70.4
1952	68.2	78.4	56.4	73.4	92.8	87.0	120.9	71.9
1953	66.6	79.2	58.7	74.6	89.4	84.2	113.5	74.2
1954	59.6	69.4	59.8	67.2	88.7	85.9	99.7	86.2
1955	60.9	73.1	62.4	70.7	86.2	83.3	97.7	85.3
1956	67.4	79.7	67.3	76.9	87.7	84.6	100.2	84.4
1957	63.6	78.1	70.5	76.4	83.2	81.4	90.2	90.2
1958	53.7	65.2	68.8	66.0	81.4	82.3	78.0	105.6
1959	62.1	72.4	69.6	71.7	86.6	85.8	89.2	96.2
1960	62.6	72.8	69.7	72.1	86.8	85.9	89.8	95.7
1961	62.1	69.9	70.7	70.1	88.6	88.9	87.9	101.1
1962	69.5	74.7	74.3	74.6	93.1	93.0	93.6	99.4
1963	72.2	77.1	76.3	76.9	93.9	93.7	94.7	99.0
1964	80.8	81.9	80.6	81.6	99.1	98.7	100.3	98.4
1965	88.8	89.6	86.0	88.8	100.0	99.1	103.3	95.9
1966	98.9	100.1	94.2	98.7	100.2	98.9	105.0	94.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	99.9	98.0	104.3	99.7	100.2	101.9	95.8	106.4
1969	104.5	102.6	111.5	104.9	99.6	101.9	93.7	108.7
1970	102.7	97.2	116.1	101.7	100.9	105.6	88.4	119.4
1971	96.8	87.9	116.8	94.6	102.3	110.1	82.9	132.8
1972	108.3	94.7	120.3	100.7	107.5	114.3	90.0	127.1
1973	122.4	106.3	130.0	111.8	109.4	115.2	94.2	122.3
1974	118.1	110.4	138.0	116.9	101.1	107.0	85.6	125.0
1975	114.5	100.1	137.3	108.6	105.4	114.4	83.4	137.2
1976	118.9	101.4	139.4	110.2	107.9	117.2	85.3	137.4
1977	125.7	107.3	145.1	116.0	108.3	117.1	86.6	135.2
1978	134.3	116.4	154.0	125.1	107.3	115.3	87.2	132.3

TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	23.4	50.7	43.0	49.1	47.6	46.1	54.3	84.9
1949	21.5	43.4	41.6	43.0	50.0	49.5	51.6	95.8
1950	26.1	52.0	42.5	50.0	52.2	50.2	61.4	81.8
1951	31.1	58.9	47.2	56.5	55.0	52.8	65.8	80.2
1952	38.0	63.4	51.4	61.0	62.4	60.0	74.0	81.1
1953	39.5	70.9	52.4	67.2	58.8	55.7	75.3	73.9
1954	35.4	61.4	49.7	59.0	60.0	57.7	71.3	80.8
1955	38.1	65.2	50.9	62.3	61.1	58.4	74.7	78.1
1956	41.4	69.5	55.4	66.6	62.1	59.5	74.8	79.6
1957	43.0	69.4	53.0	66.1	65.0	61.9	81.2	76.3
1958	40.5	63.8	52.7	61.5	65.8	63.4	76.8	82.6
1959	48.4	72.8	56.6	69.5	69.7	66.5	85.6	77.7
1960	51.1	74.9	59.3	71.7	71.2	68.2	86.2	79.1
1961	53.7	75.7	63.1	73.1	73.4	70.9	85.1	83.3
1962	60.7	81.1	68.5	78.5	77.3	74.8	88.5	84.5
1963	66.1	79.7	71.1	77.9	84.7	82.9	92.9	89.2
1964	69.8	79.5	74.5	78.5	88.9	87.7	93.7	93.6
1965	82.7	86.4	81.3	85.4	96.9	95.7	101.8	94.1
1966	96.5	99.6	93.0	98.2	98.2	96.9	103.7	93.4
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	105.5	101.1	105.8	103.2	102.3	104.3	99.8	104.6
1969	113.2	103.5	112.8	106.5	106.3	109.4	100.4	109.1
1970	106.9	97.0	116.3	101.8	105.0	110.2	91.9	119.9
1971	107.6	90.7	116.5	96.7	111.3	118.6	92.4	128.4
1972	121.3	95.5	119.8	101.2	119.8	127.0	101.2	125.5
1973	136.0	103.7	130.0	109.9	123.7	131.1	104.6	125.4
1974	130.9	101.9	133.7	109.1	120.0	128.5	98.0	131.1
1975	118.0	87.6	129.2	96.5	122.3	134.7	91.3	147.5
1976	127.5	92.5	132.5	101.2	126.1	137.9	96.2	143.3
1977	140.9	98.4	138.7	107.2	131.5	143.2	101.6	140.9
1978	152.5	103.4	145.3	112.6	135.5	147.5	105.0	140.5

TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	32.1	58.3	44.4	54.6	58.8	55.1	72.4	76.2
1949	32.6	55.8	42.0	52.2	62.4	58.4	77.6	75.2
1950	43.1	61.0	44.0	56.6	76.1	70.5	97.9	72.0
1951	47.2	73.4	53.3	68.2	69.2	64.2	88.4	72.6
1952	53.8	85.4	56.2	77.7	69.3	63.0	95.7	65.8
1953	65.7	98.8	60.0	88.5	74.3	66.5	109.5	60.8
1954	60.3	85.7	62.1	79.5	75.8	70.3	97.1	72.4
1955	71.3	93.1	65.3	85.8	83.1	76.6	109.1	70.2
1956	61.1	91.0	70.5	85.7	71.3	67.1	86.7	77.4
1957	65.3	92.4	72.7	87.3	74.8	70.7	89.3	78.7
1958	54.0	76.8	70.2	75.3	71.7	70.2	76.9	91.3
1959	60.0	82.0	71.0	79.2	75.7	73.2	84.6	86.5
1960	61.7	79.8	69.7	77.3	79.8	77.3	88.4	87.4
1961	58.0	75.0	70.1	73.7	78.7	77.4	82.9	93.5
1962	68.9	83.1	72.7	80.5	85.6	82.9	94.7	87.6
1963	77.8	86.3	75.9	83.7	93.0	90.2	102.5	88.0
1964	82.0	85.7	79.5	84.1	97.5	95.7	103.2	92.7
1965	93.4	93.4	84.2	91.1	102.6	100.1	111.0	90.1
1966	100.9	101.6	92.7	99.4	101.6	99.4	108.9	91.2
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	112.6	105.6	106.1	104.7	107.5	106.6	106.1	100.5
1969	107.7	103.5	111.7	104.5	103.1	104.1	96.4	108.0
1970	87.8	86.8	109.9	91.6	95.9	101.2	80.0	126.6
1971	98.6	83.3	108.1	88.6	111.3	118.4	91.2	129.7
1972	106.2	86.9	112.6	92.4	115.0	122.3	94.3	129.6
1973	113.9	94.5	117.8	99.3	114.7	120.6	96.7	124.6
1974	96.9	88.1	120.2	95.2	101.9	110.0	80.7	136.4
1975	92.8	80.5	119.6	89.4	103.9	115.4	77.6	148.6
1976	112.8	87.1	120.6	94.5	119.3	129.4	93.5	138.4
1977	129.0	92.2	124.5	99.3	129.9	139.9	103.6	135.0
1978	136.6	95.8	130.7	103.5	132.0	142.6	104.5	136.4

TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	29.2	56.4	36.3	52.2	55.9	51.8	80.5	64.3
1949	28.4	50.7	44.9	49.3	57.6	56.1	63.3	88.6
1950	33.4	55.4	47.9	53.7	62.3	60.3	69.8	86.4
1951	40.9	67.6	53.8	64.6	63.3	60.5	75.9	79.6
1952	47.1	74.4	55.7	70.4	66.9	63.3	84.6	74.8
1953	51.2	80.8	57.3	75.8	67.6	63.4	89.4	70.9
1954	50.4	72.2	57.6	69.0	73.0	69.8	87.4	79.8
1955	53.5	73.7	61.1	70.9	75.5	72.6	87.6	82.9
1956	56.7	77.0	66.4	74.6	76.0	73.6	85.4	86.2
1957	54.9	76.9	68.4	74.9	73.4	71.4	80.3	88.9
1958	54.5	71.4	69.4	70.7	77.1	76.3	78.5	97.2
1959	61.6	78.4	72.6	76.9	80.1	78.6	84.9	92.5
1960	63.1	79.7	74.3	78.3	80.6	79.1	84.9	93.1
1961	62.1	78.9	76.7	78.3	79.3	78.7	81.0	97.3
1962	68.3	81.7	80.4	81.3	83.9	83.6	84.9	98.4
1963	72.7	81.5	81.5	81.5	89.2	89.1	89.2	99.9
1964	73.7	81.9	79.5	81.3	90.6	89.9	92.7	97.1
1965	85.1	86.8	83.6	86.0	99.0	98.0	101.8	96.3
1966	98.1	97.4	91.5	95.9	102.3	100.7	107.2	94.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.3	100.4	107.6	100.6	106.7	106.9	99.7	107.2
1969	119.3	104.3	109.1	103.8	115.0	114.4	109.4	104.5
1970	106.8	99.0	111.9	101.1	105.7	107.9	95.4	113.1
1971	104.6	92.2	109.3	95.7	109.3	113.4	95.7	118.5
1972	116.4	97.8	114.1	100.9	115.3	119.1	102.0	116.7
1973	128.0	106.4	127.1	110.8	115.6	120.3	100.8	119.4
1974	121.1	111.6	134.5	116.5	103.9	108.5	90.0	120.5
1975	124.5	101.3	130.6	108.4	114.8	122.9	95.3	128.9
1976	134.5	108.2	133.5	113.9	118.1	124.4	100.7	123.5
1977	140.7	116.5	138.5	121.1	116.2	120.7	101.6	118.9
1978	147.7	124.6	144.2	128.2	115.2	118.6	102.4	115.8

TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948	59.9	102.6	33.2	86.8	69.0	58.4	180.4	32.4
1949	53.8	91.6	34.4	78.6	68.5	58.7	156.3	37.6
1950	61.1	97.6	41.1	84.7	72.1	62.6	148.7	42.1
1951	64.1	98.4	52.3	87.9	72.9	65.1	122.6	53.1
1952	65.7	96.1	61.1	88.1	74.5	68.3	107.5	63.6
1953	68.1	101.9	59.3	92.2	73.9	66.8	114.8	58.2
1954	65.4	92.8	73.4	88.4	74.0	70.5	89.0	79.2
1955	72.4	95.6	72.0	90.2	80.3	75.8	100.7	75.3
1956	72.9	96.2	81.5	92.9	78.4	75.7	89.4	84.6
1957	71.7	92.0	84.3	90.3	79.4	77.9	85.0	91.7
1958	70.5	87.9	86.6	87.6	80.5	80.2	81.4	98.6
1959	79.2	92.5	91.0	92.2	85.9	85.6	87.0	98.4
1960	77.7	91.7	91.7	91.7	84.8	84.8	84.8	100.0
1961	79.3	89.6	83.9	88.3	89.8	88.5	94.5	93.7
1962	82.9	92.4	80.9	89.9	92.3	89.8	102.4	87.6
1963	84.3	90.7	81.0	88.6	95.2	92.9	104.1	89.3
1964	87.2	92.3	79.9	89.6	97.3	94.5	109.1	86.6
1965	92.4	99.0	79.2	94.7	97.6	93.3	116.6	80.0
1966	99.3	104.4	87.8	100.8	98.6	95.1	113.2	84.1
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.2	99.9	105.6	100.6	105.6	106.3	100.5	105.7
1969	110.8	100.9	104.9	101.2	109.5	109.8	105.7	103.9
1970	107.2	97.2	108.2	98.7	108.6	110.3	99.1	111.3
1971	112.2	94.6	109.7	96.8	116.0	118.7	102.3	116.0
1972	125.3	101.0	104.0	101.1	123.9	124.1	120.5	103.0
1973	128.8	104.1	104.6	103.8	124.1	123.7	123.2	100.5
1974	119.9	102.9	105.5	103.0	116.5	116.5	113.7	102.5
1975	121.4	94.2	94.1	93.8	129.4	128.9	129.0	99.9
1976	129.5	98.5	98.9	98.2	131.9	131.5	130.9	100.4
1977	150.8	102.2	98.3	101.1	149.1	147.5	153.4	96.2
1978	157.0	107.5	102.3	106.2	147.9	146.1	153.5	95.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Domestic Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948 I	48.2	91.3	61.0	82.1	58.7	52.8	78.9	66.9
1948 II	49.1	90.8	61.7	81.9	60.0	54.1	79.6	68.0
1948 III	49.0	91.8	62.4	82.9	59.1	53.3	78.4	68.0
1948 IV	49.6	91.4	63.2	82.8	59.9	54.3	78.5	69.1
1949 I	48.4	90.0	62.8	81.8	59.2	53.8	77.2	69.7
1949 II	48.0	89.2	63.4	81.4	59.0	53.8	75.7	71.1
1949 III	48.3	87.7	63.9	80.5	60.0	55.1	75.6	72.8
1949 IV	47.7	86.3	64.4	79.8	59.8	55.2	74.0	74.6
1950 I	49.9	86.5	64.6	80.0	62.5	57.7	77.3	74.7
1950 II	51.9	88.6	65.3	81.5	63.6	58.6	79.5	73.7
1950 III	54.0	90.6	66.0	83.2	64.8	59.5	81.8	72.8
1950 IV	54.8	91.4	66.7	83.9	65.3	60.0	82.2	73.0
1951 I	55.0	92.2	67.2	84.7	65.0	59.6	81.9	72.8
1951 II	55.5	92.5	67.8	85.0	65.3	60.0	81.8	73.4
1951 III	56.3	91.4	68.5	84.5	66.7	61.7	82.3	74.9
1951 IV	56.7	91.8	69.1	85.0	66.7	61.8	82.0	75.3
1952 I	57.1	92.3	69.2	85.4	66.8	61.8	82.4	75.0
1952 II	57.2	91.0	69.8	84.7	67.5	62.8	82.0	76.7
1952 III	57.5	91.2	70.2	84.9	67.7	63.0	82.0	76.9
1952 IV	59.1	93.6	70.7	86.7	68.1	63.1	83.6	75.5
1953 I	60.3	94.1	70.6	87.1	69.3	64.1	85.4	75.0
1953 II	60.9	93.7	71.1	86.9	70.0	64.9	85.6	75.8
1953 III	60.5	92.8	71.5	86.5	69.9	65.1	84.5	77.1
1953 IV	59.5	91.3	72.0	85.6	69.6	65.2	82.6	78.9
1954 I	58.9	90.9	72.1	85.3	69.1	64.8	81.7	79.4
1954 II	58.6	89.6	72.4	84.5	69.4	65.5	81.0	80.8
1954 III	59.6	89.2	72.8	84.4	70.6	66.8	81.8	81.6
1954 IV	60.9	90.0	73.2	85.0	71.6	67.7	83.2	81.4
1955 I	62.7	91.4	73.8	86.2	72.7	68.5	84.9	80.8
1955 II	64.1	92.5	74.3	87.1	73.6	69.3	86.3	80.4
1955 III	65.0	93.9	74.9	88.3	73.6	69.2	86.8	79.7
1955 IV	65.8	95.2	75.5	89.4	73.6	69.1	87.2	79.3
1956 I	66.0	94.6	75.9	89.1	74.0	69.7	86.9	80.2
1956 II	66.4	95.1	76.5	89.6	74.1	69.8	86.8	80.5
1956 III	66.2	94.7	77.1	89.5	74.0	69.9	85.9	81.4
1956 IV	67.1	94.4	77.6	89.5	75.0	71.1	86.5	82.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Domestic Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1957 I	67.7	94.2	78.1	89.5	75.6	71.9	86.7	82.9
1957 II	67.7	93.7	78.7	89.3	75.8	72.2	86.1	84.0
1957 III	67.7	93.8	79.1	89.5	75.6	72.2	85.6	84.4
1957 IV	66.8	91.7	79.7	88.3	75.6	72.8	83.7	86.9
1958 I	65.2	89.1	79.9	86.6	75.3	73.2	81.7	89.6
1958 II	65.0	88.1	80.3	86.0	75.6	73.8	80.9	91.2
1958 III	66.4	88.9	80.7	86.7	76.6	74.7	82.3	90.8
1958 IV	68.7	90.3	81.1	87.7	78.3	76.1	84.7	89.8
1959 I	70.3	91.5	81.6	88.7	79.2	76.9	86.2	89.2
1959 II	72.2	93.7	81.9	90.3	79.9	77.1	88.1	87.5
1959 III	71.0	92.8	82.2	89.8	79.1	76.5	86.4	88.6
1959 IV	71.4	92.6	82.7	89.8	79.5	77.1	86.3	89.3
1960 I	73.3	92.6	83.2	90.0	81.5	79.2	88.2	89.9
1960 II	72.9	93.2	83.5	90.5	80.6	78.3	87.4	89.6
1960 III	72.6	93.2	83.8	90.6	80.1	77.8	86.6	89.9
1960 IV	71.7	92.0	84.1	89.9	79.7	77.9	85.3	91.4
1961 I	72.0	91.4	84.3	89.5	80.4	78.7	85.4	92.3
1961 II	73.2	90.5	84.7	89.1	82.2	80.9	86.4	93.6
1961 III	74.2	91.2	85.1	89.7	82.7	81.4	87.2	93.3
1961 IV	76.2	91.9	85.4	90.3	84.5	83.0	89.2	93.0
1962 I	77.4	92.8	85.9	91.0	85.0	83.4	90.1	92.6
1962 II	78.3	93.3	86.4	91.5	85.6	84.0	90.7	92.6
1962 III	79.0	92.8	86.8	91.3	86.5	85.2	91.0	93.6
1962 IV	79.5	92.1	87.3	91.0	87.4	86.3	91.1	94.8
1963 I	80.3	92.7	87.7	91.6	87.7	86.6	91.5	94.7
1963 II	81.7	93.3	88.2	92.1	88.7	87.6	92.6	94.6
1963 III	82.8	93.3	88.7	92.3	89.7	88.7	93.3	95.0
1963 IV	83.5	93.7	89.1	92.7	90.1	89.1	93.7	95.2
1964 I	84.9	93.6	89.5	92.7	91.5	90.7	94.8	95.7
1964 II	86.1	94.6	90.0	93.6	92.0	91.0	95.6	95.2
1964 III	87.4	94.9	90.7	94.0	93.0	92.1	96.4	95.5
1964 IV	88.4	95.5	91.3	94.7	93.4	92.5	96.8	95.6
1965 I	90.5	96.6	91.8	95.5	94.7	93.7	98.5	95.1
1965 II	92.0	97.8	92.5	96.6	95.2	94.0	99.5	94.6
1965 III	93.1	97.5	93.2	96.6	96.4	95.6	100.0	95.6
1965 IV	95.4	98.5	93.9	97.5	97.8	96.8	101.6	95.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Domestic Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1966 I	97.0	99.4	94.4	98.3	98.7	97.6	102.7	95.0
1966 II	97.5	99.9	95.3	98.9	98.6	97.6	102.3	95.4
1966 III	98.3	100.2	96.2	99.4	98.9	98.1	102.2	96.0
1966 IV	98.7	100.1	97.1	99.6	99.1	98.6	101.6	97.1
1967 I	98.5	99.9	97.7	99.7	98.8	98.6	100.7	97.8
1967 II	99.4	99.1	98.4	99.3	100.1	100.3	101.0	99.3
1967 III	100.5	99.8	99.2	99.9	100.5	100.6	101.3	99.4
1967 IV	101.6	100.3	100.0	100.4	101.2	101.3	101.6	99.7
1968 I	103.1	100.5	100.6	100.7	102.3	102.5	102.4	100.1
1968 II	104.6	101.3	101.4	101.5	103.0	103.3	103.1	100.2
1968 III	106.3	102.0	102.2	102.2	104.0	104.3	104.0	100.2
1968 IV	107.0	102.6	103.0	102.9	103.9	104.3	103.9	100.4
1969 I	107.9	104.3	103.8	104.3	103.5	103.5	104.0	99.5
1969 II	109.1	104.5	104.7	104.7	104.1	104.4	104.1	100.3
1969 III	109.2	104.9	105.6	105.3	103.7	104.1	103.3	100.7
1969 IV	108.7	104.4	106.5	105.2	103.3	104.1	102.0	102.0
1970 I	107.9	104.2	107.1	105.3	102.5	103.6	100.8	102.8
1970 II	107.9	103.3	107.8	104.9	102.8	104.4	100.0	104.4
1970 III	108.7	102.3	108.6	104.5	104.0	106.3	100.1	106.2
1970 IV	107.3	101.5	109.2	104.1	103.1	105.8	98.3	107.7
1971 I	109.7	101.8	109.7	104.5	105.0	107.8	100.0	107.8
1971 II	110.2	102.2	110.5	105.1	104.9	107.8	99.7	108.1
1971 III	111.4	101.6	111.2	104.9	106.2	109.6	100.2	109.4
1971 IV	112.6	103.0	111.9	106.0	106.1	109.3	100.6	108.6
1972 I	115.4	104.2	112.3	107.0	107.9	110.7	102.8	107.7
1972 II	117.4	104.9	113.0	107.7	109.0	112.0	103.9	107.8
1972 III	118.8	105.5	114.0	108.4	109.6	112.7	104.3	108.1
1972 IV	121.4	106.5	114.8	109.4	111.0	114.0	105.7	107.8
1973 I	124.9	108.0	115.5	110.6	112.9	115.6	108.1	107.0
1973 II	125.0	109.1	116.4	111.7	112.0	114.6	107.4	106.7
1973 III	125.3	109.8	117.4	112.4	111.4	114.1	106.7	106.9
1973 IV	125.9	110.5	118.4	113.2	111.2	113.9	106.3	107.2
1974 I	124.3	110.9	118.9	113.7	109.3	112.0	104.5	107.2
1974 II	124.0	110.8	119.7	113.8	109.0	112.0	103.6	108.1
1974 III	122.6	110.3	120.5	113.8	107.8	111.2	101.7	109.3
1974 IV	120.0	108.6	121.2	112.9	106.3	110.4	99.0	111.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Domestic Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1975 I	116.7	105.2	121.2	110.5	105.6	111.0	96.3	115.3
1975 II	119.4	104.1	121.4	109.9	108.7	114.7	98.4	116.6
1975 III	122.8	105.3	121.7	110.8	110.9	116.6	100.9	115.6
1975 IV	123.7	106.7	122.1	111.9	110.6	115.9	101.3	114.4
1976 I	127.4	107.9	122.6	112.8	112.9	118.1	103.9	113.6
1976 II	128.0	108.2	123.2	113.2	113.0	118.3	103.9	113.9
1976 III	128.8	108.4	123.8	113.5	113.5	118.9	104.1	114.2
1976 IV	129.9	108.9	124.3	114.0	113.9	119.3	104.5	114.1
1977 I	133.2	110.4	124.9	115.2	115.6	120.6	106.7	113.1
1977 II	135.2	112.4	125.5	116.8	115.7	120.2	107.7	111.6
1977 III	137.6	113.0	126.1	117.4	117.2	121.8	109.2	111.6
1977 IV	138.5	114.3	126.6	118.5	116.9	121.2	109.4	110.8
1978 I	139.4	115.4	127.3	119.4	116.7	120.8	109.5	110.3
1978 II	142.9	117.7	128.0	121.2	117.9	121.4	111.6	108.7
1978 III	144.4	118.2	128.8	121.8	118.5	122.1	112.1	108.9
1978 IV	146.6	120.0	129.5	123.3	119.0	122.2	113.2	107.9
1979 I	147.1	121.1	130.3	124.3	118.3	121.4	112.8	107.6
1979 II	145.9	121.0	131.3	124.5	117.2	120.6	111.2	108.5
1979 III	146.4	121.7	132.0	125.2	116.9	120.3	110.9	108.5
1979 IV	147.4	122.6	132.8	126.1	116.9	120.2	111.0	108.3
1980 I	147.8	122.7	133.5	126.4	116.9	120.5	110.7	108.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948 I	42.1	74.3	44.5	66.0	63.8	56.7	94.6	59.9
1948 II	42.7	73.6	45.0	65.7	65.1	58.0	94.9	61.1
1948 III	42.6	74.2	45.4	66.2	64.3	57.3	93.7	61.2
1948 IV	42.9	73.5	45.9	65.9	65.2	58.4	93.5	62.5
1949 I	41.8	71.7	46.3	64.7	64.6	58.3	90.3	64.6
1949 II	40.8	69.8	46.5	63.4	64.3	58.4	87.6	66.7
1949 III	40.9	68.9	46.8	62.8	65.1	59.4	87.4	67.9
1949 IV	39.7	67.8	46.8	62.1	63.9	58.5	84.7	69.1
1950 I	42.1	68.9	47.2	62.9	66.9	61.1	89.2	68.5
1950 II	44.8	71.6	47.5	65.0	68.9	62.6	94.2	66.4
1950 III	47.4	74.6	48.0	67.3	70.5	63.5	98.8	64.3
1950 IV	49.1	76.3	48.7	68.7	71.5	64.3	100.8	63.8
1951 I	49.6	77.5	49.3	69.7	71.1	63.9	100.6	63.6
1951 II	50.0	78.0	50.0	70.3	71.2	64.1	100.0	64.1
1951 III	50.3	77.2	50.7	69.9	71.9	65.1	99.2	65.6
1951 IV	50.6	77.2	51.1	70.0	72.3	65.6	98.9	66.3
1952 I	50.7	78.3	51.7	71.0	71.4	64.8	98.1	66.0
1952 II	50.0	77.4	52.1	70.5	71.0	64.7	96.1	67.3
1952 III	50.4	78.0	52.4	71.0	71.0	64.6	96.1	67.3
1952 IV	53.0	80.5	52.9	72.9	72.7	65.9	100.2	65.8
1953 I	54.3	81.4	53.4	73.7	73.6	66.7	101.7	65.6
1953 II	55.0	81.8	53.9	74.1	74.2	67.2	102.0	65.9
1953 III	54.7	80.7	54.4	73.5	74.4	67.7	100.5	67.4
1953 IV	52.6	79.1	54.7	72.4	72.6	66.5	96.2	69.2
1954 I	52.0	77.2	55.0	71.2	73.1	67.4	94.6	71.2
1954 II	51.8	76.1	55.3	70.5	73.5	68.1	93.8	72.6
1954 III	52.4	75.5	55.6	70.2	74.6	69.4	94.2	73.6
1954 IV	53.9	76.5	56.0	71.0	75.9	70.5	96.4	73.1
1955 I	56.6	78.0	56.4	72.2	78.3	72.5	100.3	72.3
1955 II	58.3	79.7	56.8	73.5	79.3	73.2	102.6	71.4
1955 III	59.0	80.6	57.5	74.4	79.4	73.2	102.7	71.3
1955 IV	59.8	81.7	58.2	75.3	79.4	73.3	102.8	71.3
1956 I	59.8	81.8	58.8	75.6	79.1	73.1	101.6	71.9
1956 II	60.0	81.9	59.5	75.9	79.2	73.4	100.9	72.7
1956 III	59.7	81.2	60.1	75.6	78.9	73.5	99.3	74.0
1956 IV	60.6	82.2	60.7	76.5	79.3	73.7	99.9	73.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1957 I	61.3	82.1	61.2	76.6	80.1	74.7	100.2	74.5
1957 II	61.4	81.5	61.7	76.3	80.5	75.3	99.4	75.7
1957 III	61.1	80.9	62.3	76.0	80.3	75.5	98.1	76.9
1957 IV	59.6	79.0	62.6	74.8	79.7	75.5	95.2	79.3
1958 I	57.0	76.7	62.9	73.2	77.8	74.3	90.7	81.9
1958 II	56.4	75.0	63.0	72.1	78.3	75.2	89.6	84.0
1958 III	58.2	75.9	63.3	72.8	79.9	76.7	92.0	83.4
1958 IV	60.6	77.3	63.6	73.9	82.1	78.4	95.3	82.3
1959 I	63.1	80.0	63.9	75.9	83.2	78.9	98.7	79.9
1959 II	65.6	81.8	64.5	77.3	84.8	80.2	101.7	78.8
1959 III	64.2	81.1	64.8	76.9	83.5	79.2	99.1	79.9
1959 IV	64.7	81.0	65.3	77.0	84.0	79.8	98.9	80.7
1960 I	67.6	83.0	66.0	78.6	85.9	81.4	102.4	79.5
1960 II	67.0	82.7	66.5	78.6	85.3	81.1	100.8	80.4
1960 III	66.0	81.9	66.9	78.1	84.5	80.6	98.6	81.7
1960 IV	65.5	80.3	67.2	77.0	85.0	81.5	97.4	83.7
1961 I	65.6	80.1	67.5	77.0	85.1	81.8	97.1	84.3
1961 II	67.1	80.5	67.9	77.4	86.6	83.3	98.7	84.4
1961 III	68.4	81.4	68.4	78.2	87.5	84.0	100.0	84.0
1961 IV	70.9	82.4	68.8	79.0	89.8	86.1	103.1	83.5
1962 I	72.7	83.5	70.0	80.2	90.7	87.0	103.8	83.9
1962 II	73.7	84.6	71.0	81.2	90.7	87.1	103.7	84.0
1962 III	74.6	84.7	72.0	81.6	91.4	88.0	103.6	85.0
1962 IV	75.5	84.5	72.6	81.6	92.5	89.3	103.9	86.0
1963 I	76.5	85.4	73.4	82.5	92.8	89.6	104.3	85.9
1963 II	78.4	86.2	74.2	83.3	94.1	90.9	105.7	86.1
1963 III	79.8	86.6	75.2	83.9	95.1	92.2	106.1	86.9
1963 IV	80.7	86.9	76.1	84.3	95.7	92.9	106.1	87.5
1964 I	82.6	87.6	76.9	85.1	97.1	94.3	107.3	87.8
1964 II	83.9	88.6	78.0	86.1	97.4	94.7	107.5	88.0
1964 III	85.2	89.2	79.0	86.8	98.1	95.5	107.8	88.6
1964 IV	85.9	90.1	80.2	87.8	97.8	95.4	107.1	89.0
1965 I	89.2	92.2	81.7	89.8	99.4	96.8	109.3	88.6
1965 II	90.6	93.0	82.9	90.7	99.9	97.5	109.3	89.2
1965 III	92.1	93.8	84.5	91.7	100.4	98.2	109.0	90.1
1965 IV	94.8	95.3	85.7	93.1	101.8	99.5	110.6	89.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1966 I	97.0	97.6	87.4	95.3	101.8	99.4	110.9	89.6
1966 II	98.5	98.6	89.5	96.6	102.0	99.9	110.1	90.7
1966 III	99.5	99.2	91.4	97.6	102.0	100.3	108.9	92.2
1966 IV	100.1	99.6	93.9	98.6	101.5	100.5	106.6	94.3
1967 I	100.0	100.0	95.8	99.4	100.6	100.0	104.3	95.8
1967 II	100.4	99.4	97.1	99.2	101.2	101.0	103.4	97.6
1967 III	101.5	99.9	98.5	99.8	101.7	101.6	103.1	98.6
1967 IV	102.8	100.6	100.0	100.7	102.1	102.2	102.8	99.4
1968 I	105.0	101.8	101.2	101.8	103.2	103.2	103.8	99.4
1968 II	107.1	102.8	102.9	103.0	104.0	104.2	104.1	100.1
1968 III	108.9	103.7	104.2	104.0	104.8	105.1	104.6	100.4
1968 IV	110.1	104.3	105.3	104.7	105.2	105.6	104.6	101.0
1969 I	111.7	106.4	106.7	106.6	104.7	105.0	104.7	100.3
1969 II	113.0	107.3	108.3	107.8	104.9	105.3	104.3	101.0
1969 III	113.2	107.9	109.7	108.6	104.2	104.9	103.2	101.6
1969 IV	112.5	107.7	110.8	108.7	103.4	104.4	101.5	102.9
1970 I	112.0	108.4	111.8	109.5	102.3	103.3	100.1	103.2
1970 II	111.7	107.0	112.8	108.7	102.7	104.4	99.0	105.4
1970 III	112.2	105.9	113.6	108.2	103.8	106.0	98.8	107.3
1970 IV	109.6	104.1	114.4	107.0	102.4	105.3	95.8	109.9
1971 I	113.3	105.7	114.9	108.3	104.6	107.2	98.6	108.7
1971 II	114.2	106.0	115.9	108.8	104.9	107.7	98.5	109.4
1971 III	115.1	105.6	116.8	108.8	105.8	109.0	98.5	110.6
1971 IV	116.6	106.8	117.6	109.9	106.1	109.2	99.2	110.1
1972 I	120.8	109.6	118.6	112.2	107.7	110.3	101.9	108.2
1972 II	123.3	110.9	119.9	113.5	108.6	111.2	102.9	108.1
1972 III	125.1	111.4	121.3	114.3	109.5	112.3	103.1	108.9
1972 IV	128.2	113.2	122.1	115.8	110.7	113.3	105.0	107.9
1973 I	132.7	115.6	122.9	117.8	112.7	114.8	108.0	106.3
1973 II	133.5	116.8	123.8	118.9	112.3	114.3	107.8	106.0
1973 III	133.9	117.3	125.1	119.6	112.0	114.2	107.1	106.6
1973 IV	134.1	118.2	126.7	120.7	111.1	113.5	105.8	107.2
1974 I	132.2	118.5	126.8	120.9	109.3	111.5	104.2	107.0
1974 II	130.4	118.1	127.3	120.8	107.9	110.4	102.4	107.8
1974 III	128.0	117.8	127.4	120.6	106.2	108.7	100.5	108.1
1974 IV	124.8	115.3	128.3	119.0	104.9	108.3	97.3	111.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1975 I	121.4	111.2	128.0	115.9	104.8	109.2	94.9	115.1
1975 II	124.1	110.0	127.4	114.8	108.1	112.8	97.4	115.8
1975 III	128.6	111.4	127.5	115.9	111.0	115.4	100.9	114.4
1975 IV	130.2	112.9	127.4	117.0	111.3	115.3	102.2	112.8
1976 I	134.1	115.1	128.4	118.9	112.8	116.5	104.4	111.6
1976 II	135.2	115.7	129.6	119.6	113.0	116.8	104.3	112.0
1976 III	136.0	116.0	130.4	120.0	113.3	117.2	104.3	112.4
1976 IV	136.3	116.6	130.9	120.6	113.0	116.9	104.2	112.2
1977 I	140.0	118.5	132.2	122.4	114.4	118.1	105.9	111.6
1977 II	142.0	120.5	133.9	124.3	114.3	117.9	106.0	111.1
1977 III	144.3	121.5	135.7	125.5	115.0	118.8	106.3	111.7
1977 IV	145.1	122.9	136.8	126.8	114.4	118.1	106.1	111.3
1978 I	146.4	123.8	138.0	127.8	114.6	118.3	106.1	111.5
1978 II	151.5	126.8	139.7	130.5	116.1	119.5	108.4	110.2
1978 III	153.2	127.6	140.9	131.4	116.6	120.0	108.7	110.4
1978 IV	156.0	129.6	141.8	133.1	117.2	120.4	110.0	109.4
1979 I	156.9	131.1	142.6	134.4	116.8	119.7	110.0	108.8
1979 II	155.9	131.1	144.4	134.9	115.6	118.9	108.0	110.2
1979 III	156.1	131.4	144.8	135.2	115.5	118.8	107.8	110.2
1979 IV	156.9	132.2	144.8	135.8	115.5	118.7	108.3	109.6
1980 I	157.1	132.6	145.0	136.1	115.4	118.5	108.4	109.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948 I	84.1	232.3	75.8	168.5	49.9	36.2	110.9	32.6
1948 II	93.9	228.9	76.9	167.0	56.2	41.0	122.1	33.6
1948 III	90.1	235.4	78.6	171.5	52.6	38.3	114.7	33.4
1948 IV	97.6	237.6	80.3	173.6	56.2	41.1	121.5	33.8
1949 I	87.2	234.9	76.6	170.4	51.2	37.1	113.9	32.6
1949 II	88.5	242.2	78.2	175.3	50.5	36.6	113.2	32.3
1949 III	90.7	231.4	79.4	169.6	53.5	39.2	114.2	34.3
1949 IV	92.6	217.9	80.8	162.4	57.0	42.5	114.5	37.1
1950 I	98.0	214.5	78.4	159.4	61.5	45.7	124.9	36.6
1950 II	94.1	216.0	80.1	160.9	58.5	43.6	117.5	37.1
1950 III	92.5	212.9	81.8	159.9	57.8	43.4	113.0	38.4
1950 IV	94.3	213.4	83.1	160.8	58.7	44.2	113.5	39.0
1951 I	84.2	207.0	81.3	156.3	53.9	40.7	103.5	39.3
1951 II	88.3	201.8	82.3	153.7	57.5	43.8	107.3	40.8
1951 III	95.3	199.5	83.5	152.9	62.3	47.8	114.1	41.8
1951 IV	92.5	203.4	84.6	155.7	59.4	45.5	109.4	41.6
1952 I	89.5	202.4	83.0	154.4	58.0	44.2	107.8	41.0
1952 II	93.0	191.5	84.3	148.6	62.5	48.6	110.3	44.0
1952 III	97.6	188.5	84.8	147.1	66.3	51.8	115.0	45.0
1952 IV	89.4	189.8	86.1	148.5	60.2	47.1	103.9	45.3
1953 I	95.1	185.6	84.3	145.3	65.5	51.2	112.8	45.4
1953 II	97.0	178.3	85.0	141.3	68.6	54.4	114.2	47.7
1953 III	96.1	177.9	85.9	141.5	68.0	54.0	111.9	48.3
1953 IV	99.5	172.5	86.7	138.7	71.8	57.7	114.8	50.2
1954 I	97.5	181.5	85.6	143.4	68.0	53.7	114.0	47.1
1954 II	95.1	173.0	85.9	138.7	68.6	55.0	110.8	49.6
1954 III	102.0	172.8	86.6	138.9	73.4	59.0	117.7	50.1
1954 IV	102.6	166.7	87.5	135.7	75.6	61.6	117.3	52.5
1955 I	99.8	170.7	88.7	138.6	72.0	58.5	112.6	51.9
1955 II	100.9	171.5	89.3	139.3	72.5	58.9	113.0	52.1
1955 III	102.9	181.1	89.7	145.0	70.9	56.8	114.7	49.5
1955 IV	106.0	182.2	90.1	145.8	72.7	58.2	117.7	49.4
1956 I	104.5	168.9	89.8	138.1	75.7	61.9	116.3	53.2
1956 II	96.4	171.9	89.8	139.8	69.0	56.1	107.4	52.2
1956 III	100.3	171.4	90.3	139.7	71.8	58.5	111.1	52.7
1956 IV	102.2	159.2	90.6	132.8	77.0	64.2	112.8	56.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1957 I	99.7	156.9	91.2	131.7	75.7	63.6	109.4	58.1
1957 II	98.5	152.5	90.9	129.0	76.3	64.6	108.4	59.6
1957 III	96.5	157.2	91.2	131.9	73.2	61.4	105.8	58.0
1957 IV	97.6	151.4	91.8	128.8	75.8	64.5	106.3	60.6
1958 I	103.1	141.8	91.5	123.1	83.7	72.7	112.7	64.5
1958 II	101.2	145.6	92.0	125.5	80.6	69.5	110.0	63.2
1958 III	102.4	141.7	92.2	123.4	83.0	72.3	111.1	65.1
1958 IV	104.1	143.6	92.6	124.6	83.5	72.5	112.4	64.5
1959 I	101.9	141.7	93.4	123.9	82.3	71.9	109.1	65.9
1959 II	99.3	151.9	93.8	130.0	76.4	65.3	105.8	61.8
1959 III	95.0	141.1	93.9	123.8	76.8	67.3	101.2	66.6
1959 IV	99.6	139.1	94.4	122.8	81.1	71.6	105.5	67.8
1960 I	99.5	129.2	95.2	117.2	84.9	77.0	104.4	73.7
1960 II	104.1	138.4	95.1	122.7	84.8	75.2	109.5	68.7
1960 III	108.0	144.5	95.2	126.4	85.4	74.7	113.4	65.9
1960 IV	104.6	141.3	95.3	124.5	84.0	74.0	109.7	67.4
1961 I	105.5	140.2	94.6	123.6	85.4	75.2	111.5	67.5
1961 II	103.7	126.5	95.1	115.5	89.8	81.9	109.1	75.1
1961 III	103.4	129.4	95.2	117.3	88.1	79.9	108.6	73.5
1961 IV	104.5	127.7	95.4	116.3	89.9	81.9	109.6	74.7
1962 I	104.8	135.9	94.9	121.1	86.6	77.1	110.4	69.8
1962 II	105.6	127.5	95.3	116.2	90.9	82.8	110.9	74.7
1962 III	103.6	122.9	95.6	113.5	91.3	84.3	108.4	77.8
1962 IV	102.1	122.3	96.1	113.3	90.1	83.5	106.3	78.5
1963 I	106.0	123.8	95.5	114.0	93.0	85.7	111.0	77.2
1963 II	107.3	124.0	96.2	114.4	93.8	86.5	111.5	77.6
1963 III	105.9	120.4	96.6	112.4	94.2	88.0	109.7	80.2
1963 IV	105.3	118.3	96.9	111.3	94.6	89.0	108.6	81.9
1964 I	101.6	110.9	96.0	106.4	95.5	91.7	105.9	86.5
1964 II	102.9	117.7	96.5	110.7	92.9	87.4	106.7	81.9
1964 III	105.6	117.3	97.3	110.8	95.3	90.1	108.6	82.9
1964 IV	105.5	113.1	97.9	108.5	97.3	93.3	107.8	86.6
1965 I	107.2	110.1	98.4	106.9	100.3	97.3	108.9	89.4
1965 II	104.7	116.0	98.4	110.5	94.8	90.3	106.4	84.9
1965 III	109.3	109.9	98.5	106.8	102.4	99.5	111.0	89.7
1965 IV	105.1	111.4	98.6	107.8	97.5	94.3	106.6	88.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs Real Output	Labor Input	Capital Input	Total Factor Input	Productivity Ratios Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1966 I	107.1	106.0	98.7	104.5	102.5	101.0	108.6	93.1
1966 II	100.6	102.3	98.9	102.3	98.3	98.4	101.8	96.7
1966 III	96.4	98.8	98.9	100.3	96.2	97.6	97.5	100.1
1966 IV	98.0	99.1	99.1	100.5	97.5	98.9	98.9	100.0
1967 I	103.0	99.8	99.3	101.0	102.0	103.2	103.7	99.5
1967 II	102.6	93.9	99.5	98.7	104.0	109.3	103.1	106.0
1967 III	106.1	99.1	99.8	102.8	103.3	107.1	106.4	100.6
1967 IV	108.4	98.6	100.0	103.2	105.0	109.9	108.4	101.4
1968 I	105.3	97.6	100.1	103.1	102.2	108.0	105.2	102.6
1968 II	99.9	96.3	100.3	102.4	97.5	103.7	99.6	104.2
1968 III	105.0	94.9	100.5	101.6	103.3	110.6	104.5	105.9
1968 IV	106.6	94.6	100.7	101.5	105.0	112.7	105.8	106.6
1969 I	111.7	103.3	101.0	107.1	104.3	108.1	110.6	97.8
1969 II	104.7	92.5	101.1	100.4	104.3	113.2	103.5	109.3
1969 III	105.9	89.5	101.2	98.6	107.4	118.3	104.6	113.1
1969 IV	103.5	86.5	101.3	96.7	107.0	119.7	102.2	117.1
1970 I	106.9	85.6	101.5	96.3	111.0	124.9	105.3	118.6
1970 II	112.3	87.8	101.8	97.6	115.0	127.9	110.4	115.8
1970 III	108.1	84.3	102.0	96.0	112.6	128.3	105.9	121.1
1970 IV	115.5	82.1	102.3	95.0	121.6	140.7	112.9	124.6
1971 I	122.7	81.5	102.7	94.9	129.2	150.4	119.5	125.9
1971 II	115.8	83.8	102.9	96.2	120.4	138.1	112.5	122.8
1971 III	114.7	80.2	103.1	94.5	121.5	143.1	111.3	128.6
1971 IV	118.2	82.5	103.3	95.8	123.5	143.3	114.4	125.2
1972 I	124.8	84.3	103.4	96.7	129.1	148.0	120.7	122.7
1972 II	121.4	81.3	103.5	95.2	127.4	149.3	117.2	127.4
1972 III	102.8	84.6	103.7	97.0	106.0	121.5	99.2	122.6
1972 IV	111.0	83.2	103.8	96.3	115.2	133.4	106.9	124.8
1973 I	119.4	81.4	104.0	95.5	125.0	146.8	114.8	127.8
1973 II	114.8	81.1	104.7	95.7	119.9	141.5	109.7	129.0
1973 III	107.9	81.2	105.2	96.1	112.3	133.0	102.6	129.6
1973 IV	122.9	81.8	106.0	96.8	127.0	150.2	115.9	129.6
1974 I	109.0	88.3	106.5	100.3	108.7	123.5	102.4	120.6
1974 II	120.7	81.5	106.5	96.9	124.6	148.1	113.4	130.6
1974 III	115.7	78.0	106.4	95.1	121.7	148.3	108.7	136.4
1974 IV	117.9	79.9	106.3	96.0	122.9	147.7	110.9	133.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1975 I	115.5	78.3	106.5	95.3	121.2	147.5	108.5	135.9
1975 II	123.4	77.6	106.6	95.0	129.9	159.0	115.7	137.4
1975 III	126.0	80.3	106.9	96.5	130.6	156.9	117.9	133.0
1975 IV	122.0	77.5	107.1	95.2	128.2	157.5	113.9	138.2
1976 I	121.5	74.5	107.3	93.8	129.6	163.1	113.2	144.1
1976 II	112.9	76.7	107.6	95.1	118.8	147.3	104.9	140.4
1976 III	113.7	75.1	107.9	94.4	120.5	151.5	105.3	143.8
1976 IV	119.3	73.2	108.2	93.6	127.5	163.1	110.3	147.9
1977 I	117.1	73.9	108.5	94.1	124.5	158.6	107.9	146.9
1977 II	119.7	76.6	108.4	95.4	125.4	156.3	110.4	141.6
1977 III	131.0	72.1	108.2	93.0	140.8	181.7	121.1	150.0
1977 IV	132.5	75.1	108.1	94.5	140.2	176.5	122.5	144.0
1978 I	130.3	76.9	107.9	95.3	136.7	169.4	120.8	140.3
1978 II	124.5	74.7	108.2	94.3	132.0	166.8	115.1	144.9
1978 III	122.3	74.8	108.6	94.6	129.3	163.5	112.6	145.2
1978 IV	121.0	76.5	109.0	95.7	126.5	158.2	111.0	142.5
1979 I	121.7	76.6	109.5	96.0	126.7	158.9	111.1	143.0
1979 II	128.1	71.5	110.0	93.7	136.7	179.1	116.4	153.8
1979 III	127.3	71.3	110.4	93.8	135.7	178.4	115.3	154.8
1979 IV	131.1	77.6	111.2	97.4	134.6	169.0	117.9	143.3
1980 I	131.3	74.1	111.5	95.8	137.0	177.0	117.7	150.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948 I	47.0	81.3	52.5	73.8	63.7	57.8	89.6	64.5
1948 II	47.6	80.1	53.2	73.2	65.0	59.4	89.4	66.4
1948 III	48.3	80.2	53.9	73.5	65.8	60.2	89.6	67.2
1948 IV	48.1	79.1	54.6	72.9	66.0	60.8	88.0	69.1
1949 I	46.6	75.9	54.2	70.5	66.1	61.4	85.9	71.4
1949 II	44.9	72.6	54.7	68.2	65.8	61.8	82.1	75.4
1949 III	45.2	72.3	55.1	68.1	66.4	62.5	82.1	76.2
1949 IV	44.1	71.4	55.4	67.6	65.2	61.7	79.5	77.6
1950 I	46.1	73.6	56.1	69.3	66.5	62.7	82.2	76.3
1950 II	50.1	76.9	56.5	71.9	69.7	65.1	88.7	73.4
1950 III	54.4	81.4	56.9	75.2	72.4	66.8	95.6	69.9
1950 IV	55.6	83.7	57.5	77.0	72.2	66.5	96.8	68.7
1951 I	57.6	85.5	59.9	79.0	72.9	67.3	96.1	70.1
1951 II	58.2	86.1	60.6	79.7	73.0	67.5	96.0	70.4
1951 III	56.6	84.4	61.3	78.6	72.0	67.1	92.3	72.6
1951 IV	57.0	84.1	62.0	78.6	72.6	67.8	92.0	73.7
1952 I	58.2	85.3	62.7	79.7	73.0	68.2	92.8	73.5
1952 II	57.3	84.4	63.4	79.2	72.3	67.9	90.4	75.1
1952 III	58.5	85.3	63.9	80.0	73.1	68.6	91.5	75.0
1952 IV	63.0	89.9	64.5	83.5	75.4	70.1	97.6	71.8
1953 I	64.2	91.8	64.9	85.0	75.5	69.9	98.8	70.7
1953 II	64.4	92.4	65.5	85.7	75.2	69.7	98.3	70.9
1953 III	64.0	90.8	66.1	84.6	75.6	70.5	96.8	72.8
1953 IV	60.8	87.4	66.7	82.4	73.8	69.5	91.1	76.4
1954 I	58.6	84.5	67.2	80.5	72.8	69.3	87.1	79.6
1954 II	58.3	82.6	66.9	79.0	73.8	70.6	87.1	81.0
1954 III	58.3	81.5	67.1	78.3	74.5	71.5	86.8	82.4
1954 IV	59.9	82.8	67.7	79.4	75.5	72.3	88.5	81.7
1955 I	62.9	85.0	68.4	81.2	77.4	73.9	91.9	80.4
1955 II	65.4	87.4	69.0	83.1	78.7	74.8	94.7	79.0
1955 III	65.7	87.8	69.7	83.5	78.6	74.8	94.2	79.5
1955 IV	66.6	89.4	70.4	84.9	78.4	74.5	94.6	78.7
1956 I	66.0	89.1	71.1	84.9	77.7	74.0	92.7	79.8
1956 II	65.5	88.6	72.1	84.9	77.2	73.9	90.9	81.3
1956 III	64.2	87.6	72.9	84.4	76.1	73.3	88.0	83.2
1956 IV	66.7	89.4	73.7	85.9	77.6	74.6	90.4	82.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1957 I	67.5	89.3	73.8	85.9	78.6	75.6	91.5	82.7
1957 II	66.5	88.2	74.8	85.3	77.9	75.4	88.9	84.8
1957 III	66.5	87.2	75.3	84.8	78.5	76.3	88.4	86.3
1957 IV	63.2	84.6	75.8	83.1	76.1	74.7	83.4	89.5
1958 I	59.1	80.9	75.9	80.4	73.5	73.0	77.9	93.8
1958 II	58.0	78.4	75.8	78.6	73.8	74.0	76.5	96.8
1958 III	60.6	79.8	76.0	79.7	76.1	75.9	79.7	95.3
1958 IV	63.3	81.5	76.3	81.0	78.1	77.6	82.9	93.7
1959 I	66.3	84.4	76.3	83.1	79.9	78.6	86.9	90.4
1959 II	69.4	86.8	77.0	85.0	81.7	80.0	90.2	88.7
1959 III	66.2	85.5	77.1	84.1	78.7	77.4	85.9	90.2
1959 IV	66.2	85.2	77.6	84.0	78.9	77.8	85.3	91.2
1960 I	70.4	87.4	77.9	85.7	82.1	80.5	90.3	89.1
1960 II	68.3	86.2	78.5	85.0	80.3	79.2	87.0	91.0
1960 III	66.8	84.6	78.8	83.9	79.6	78.9	84.8	93.1
1960 IV	64.8	82.1	78.9	82.1	78.9	78.9	82.1	96.1
1961 I	63.6	80.9	79.1	81.3	78.2	78.5	80.3	97.8
1961 II	66.2	82.2	79.5	82.3	80.4	80.5	83.4	96.6
1961 III	68.5	83.2	79.8	83.1	82.3	82.3	85.8	95.9
1961 IV	70.9	84.7	80.2	84.4	84.0	83.6	88.3	94.6
1962 I	71.9	85.3	80.7	84.9	84.6	84.2	89.0	94.7
1962 II	72.7	86.5	81.2	86.0	84.5	84.0	89.5	93.9
1962 III	73.6	86.5	81.8	86.1	85.4	85.0	90.0	94.5
1962 IV	74.6	86.1	82.1	85.9	86.8	86.6	90.8	95.4
1963 I	76.3	86.2	82.4	86.1	88.7	88.6	92.6	95.6
1963 II	78.8	86.8	82.7	86.6	91.1	90.9	95.3	95.3
1963 III	79.6	87.1	83.2	86.9	91.6	91.4	95.6	95.6
1963 IV	81.2	87.3	83.8	87.3	93.0	93.0	96.9	96.0
1964 I	82.4	87.2	84.0	87.3	94.5	94.5	98.2	96.3
1964 II	84.3	88.2	84.4	88.1	95.7	95.6	99.9	95.7
1964 III	85.6	89.0	85.1	88.8	96.4	96.2	100.6	95.7
1964 IV	86.6	89.5	86.1	89.5	96.8	96.8	100.6	96.2
1965 I	89.8	91.8	86.5	91.3	98.3	97.8	103.8	94.3
1965 II	91.5	92.6	87.4	92.1	99.3	98.8	104.8	94.3
1965 III	93.3	93.7	88.4	93.3	100.1	99.6	105.6	94.3
1965 IV	94.8	95.5	89.5	94.9	100.0	99.3	106.0	93.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1966 I	97.7	97.6	90.4	96.7	101.0	100.1	108.1	92.6
1966 II	99.6	99.4	91.7	98.3	101.4	100.3	108.7	92.3
1966 III	100.7	100.1	93.3	99.3	101.3	100.5	107.9	93.2
1966 IV	101.2	100.7	95.0	100.2	101.0	100.5	106.5	94.3
1967 I	99.4	99.8	96.5	99.9	99.5	99.6	103.0	96.7
1967 II	98.8	98.7	97.7	99.3	99.4	100.0	101.1	99.0
1967 III	99.2	98.8	98.8	99.6	99.6	100.3	100.4	99.9
1967 IV	101.9	99.6	100.0	100.4	101.5	102.3	101.9	100.4
1968 I	103.7	100.1	100.8	100.8	102.8	103.6	102.9	100.7
1968 II	105.3	100.8	101.8	101.6	103.6	104.5	103.4	101.0
1968 III	105.8	101.5	102.9	102.5	103.3	104.2	102.8	101.4
1968 IV	106.9	102.1	103.9	103.2	103.7	104.7	103.0	101.7
1969 I	108.4	102.6	104.7	103.8	104.5	105.7	103.5	102.1
1969 II	108.4	103.2	105.9	104.5	103.7	105.0	102.4	102.6
1969 III	109.2	103.5	106.9	105.0	104.0	105.5	102.2	103.3
1969 IV	108.0	102.4	107.9	104.5	103.4	105.4	100.2	105.3
1970 I	104.3	101.2	108.6	103.7	100.5	103.1	96.0	107.3
1970 II	103.2	98.7	109.4	102.1	101.1	104.5	94.3	110.3
1970 III	102.4	96.8	109.9	100.8	101.6	105.7	93.2	113.5
1970 IV	99.7	93.3	110.4	98.3	101.4	106.8	90.2	118.4
1971 I	102.2	93.9	110.6	98.8	103.5	108.9	92.4	117.8
1971 II	103.4	93.8	111.2	98.8	104.6	110.2	92.9	118.6
1971 III	103.7	93.1	111.3	98.4	105.4	111.4	93.2	119.5
1971 IV	105.9	94.0	111.5	99.1	106.8	112.6	94.9	118.6
1972 I	108.9	95.5	111.2	100.2	108.7	114.0	97.9	116.5
1972 II	111.8	97.1	111.8	101.5	110.1	115.1	100.0	115.1
1972 III	114.3	97.6	112.9	102.1	111.9	117.1	101.2	115.7
1972 IV	118.9	99.8	113.7	104.0	114.4	119.2	104.6	114.0
1973 I	122.5	101.9	114.4	105.7	115.8	120.2	107.0	112.3
1973 II	123.9	102.9	115.1	106.7	116.2	120.5	107.6	111.9
1973 III	123.6	102.9	116.3	107.0	115.6	120.2	106.3	113.0
1973 IV	121.9	103.9	117.6	108.0	112.8	117.3	103.7	113.2
1974 I	116.2	103.2	118.0	107.7	108.0	112.6	98.5	114.3
1974 II	115.5	102.1	118.9	107.1	107.9	113.1	97.1	116.5
1974 III	116.2	101.7	120.7	107.2	108.3	114.2	96.2	118.7
1974 IV	110.8	98.1	121.6	104.7	105.8	113.0	91.1	124.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios

(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1975 I	102.3	91.6	121.9	99.9	102.4	111.7	84.0	133.0
1975 II	105.4	90.0	121.7	98.7	106.8	117.1	86.6	135.2
1975 III	112.7	91.3	121.7	99.7	113.1	123.4	92.6	133.3
1975 IV	115.0	93.5	121.8	101.3	113.5	123.0	94.4	130.4
1976 I	117.4	95.8	122.4	103.2	113.7	122.5	95.9	127.7
1976 II	118.6	95.8	123.1	103.4	114.7	123.7	96.3	128.5
1976 III	119.8	96.1	124.0	103.9	115.3	124.6	96.6	129.0
1976 IV	121.0	96.5	124.7	104.3	115.9	125.3	97.0	129.2
1977 I	124.0	98.3	125.5	105.9	117.1	126.2	98.8	127.7
1977 II	127.8	99.8	126.7	107.3	119.1	128.1	100.9	126.9
1977 III	129.6	100.4	127.7	108.0	120.0	129.2	101.5	127.3
1977 IV	130.5	101.6	128.5	109.1	119.7	128.5	101.6	126.5
1978 I	129.8	102.7	129.5	110.2	117.8	126.4	100.2	126.2
1978 II	133.1	104.1	130.7	111.5	119.4	127.9	101.9	125.6
1978 III	135.6	104.4	131.8	112.0	121.0	129.9	102.9	126.2
1978 IV	138.2	105.9	132.7	113.4	121.9	130.5	104.2	125.3
1979 I	139.5	107.4	134.0	114.9	121.5	129.9	104.1	124.8
1979 II	139.1	106.4	135.6	114.5	121.5	130.8	102.6	127.4
1979 III	139.2	105.6	136.8	114.2	121.9	131.9	101.7	129.6
1979 IV	138.7	105.7	138.1	114.7	121.0	131.2	100.5	130.6
1980 I	138.4	105.9	139.4	115.1	120.2	130.7	99.3	131.6

TABLE VII. PRIVATE BUSINESS ECONOMY NAD MAJOR SECTORS

5. Nonfarm, Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1948 I	47.0	79.9	60.3	73.6	63.9	58.9	78.1	75.4
1948 II	47.8	80.1	60.8	74.0	64.6	59.6	78.5	75.9
1948 III	47.4	81.0	61.3	74.7	63.4	58.4	77.2	75.7
1948 IV	48.1	80.7	61.9	74.7	64.3	59.5	77.6	76.7
1949 I	47.5	80.5	62.2	74.6	63.6	59.0	76.4	77.2
1949 II	47.5	80.0	62.6	74.4	63.9	59.4	76.0	78.2
1949 III	47.8	79.0	63.0	73.8	64.7	60.5	75.8	79.8
1949 IV	47.2	78.9	63.4	73.9	63.9	59.9	74.5	80.3
1950 I	49.5	78.4	64.1	73.8	67.1	63.1	77.3	81.7
1950 II	50.7	79.7	64.6	74.8	67.8	63.6	78.6	81.0
1950 III	51.9	81.1	65.1	76.0	68.4	64.0	79.7	80.3
1950 IV	52.6	81.0	65.8	76.1	69.1	64.9	79.9	81.2
1951 I	52.4	82.2	66.2	77.0	68.1	63.8	79.2	80.5
1951 II	52.7	82.9	66.7	77.7	67.9	63.6	79.0	80.5
1951 III	54.4	82.3	67.3	77.4	70.3	66.1	80.9	81.7
1951 IV	54.8	82.6	67.8	77.8	70.5	66.4	80.9	82.0
1952 I	55.0	83.0	68.1	78.2	70.4	66.3	80.8	82.1
1952 II	55.5	82.7	68.5	78.1	71.1	67.1	81.0	82.8
1952 III	55.2	82.9	68.8	78.3	70.4	66.5	80.2	82.9
1952 IV	55.9	84.2	69.1	79.3	70.4	66.4	80.8	82.1
1953 I	56.9	84.5	69.3	79.6	71.5	67.4	82.1	82.0
1953 II	57.5	84.3	69.6	79.6	72.3	68.2	82.6	82.6
1953 III	57.1	83.8	70.0	79.3	72.1	68.2	81.7	83.5
1953 IV	57.1	83.7	70.3	79.4	71.9	68.2	81.1	84.0
1954 I	57.3	83.6	70.6	79.4	72.2	68.5	81.1	84.5
1954 II	57.1	83.4	71.0	79.4	71.9	68.4	80.4	85.1
1954 III	58.2	83.5	71.4	79.5	73.1	69.7	81.5	85.5
1954 IV	59.4	84.8	71.7	80.5	73.8	70.1	82.8	84.6
1955 I	60.9	85.5	72.2	81.2	75.0	71.2	84.3	84.4
1955 II	61.8	85.8	72.6	81.5	75.8	72.0	85.1	84.6
1955 III	62.9	86.9	73.1	82.5	76.3	72.4	86.0	84.1
1955 IV	63.6	88.0	73.8	83.4	76.2	72.2	86.2	83.8
1956 I	64.2	88.8	74.3	84.1	76.3	72.3	86.4	83.7
1956 II	65.4	89.4	74.9	84.7	77.2	73.1	87.3	83.7
1956 III	65.6	89.4	75.4	84.9	77.3	73.4	87.0	84.3
1956 IV	65.8	89.4	75.9	85.0	77.3	73.5	86.6	84.9

TABLE VII. PRIVATE BUSINESS ECONOMY NAD MAJOR SECTORS

5. Nonfarm, Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1966 I	96.4	99.5	94.7	98.0	98.4	96.9	101.9	95.1
1966 II	96.5	99.9	95.6	98.5	97.9	96.6	100.9	95.7
1966 III	97.3	100.3	96.4	99.1	98.2	97.0	101.0	96.1
1966 IV	97.7	99.9	97.3	99.2	98.5	97.8	100.4	97.5
1967 I	98.2	100.0	97.7	99.4	98.8	98.2	100.4	97.8
1967 II	99.7	100.0	98.4	99.6	100.1	99.7	101.3	98.4
1967 III	100.9	100.5	99.2	100.2	100.8	100.4	101.7	98.8
1967 IV	101.2	100.9	100.0	100.7	100.6	100.3	101.3	99.1
1968 I	102.8	101.1	100.7	101.0	101.7	101.7	102.1	99.6
1968 II	104.6	102.1	101.5	102.0	102.6	102.4	103.0	99.4
1968 III	106.8	103.1	102.4	102.9	103.8	103.6	104.3	99.3
1968 IV	106.8	103.8	103.2	103.7	103.0	102.9	103.5	99.4
1969 I	107.9	105.4	104.2	105.0	102.8	102.4	103.6	98.9
1969 II	109.3	106.6	105.2	106.2	103.0	102.6	103.9	98.7
1969 III	109.0	107.5	106.2	107.1	101.7	101.4	102.6	98.8
1969 IV	108.9	107.6	107.2	107.5	101.3	101.3	101.6	99.7
1970 I	109.8	108.1	107.8	108.1	101.6	101.6	101.8	99.8
1970 II	110.0	107.7	108.7	108.1	101.8	102.2	101.2	101.0
1970 III	111.8	107.5	109.6	108.3	103.3	104.1	102.0	102.0
1970 IV	110.7	108.3	110.4	109.1	101.5	102.2	100.3	101.9
1971 I	112.8	108.6	111.0	109.5	103.0	103.9	101.6	102.2
1971 II	113.3	109.1	111.9	110.2	102.9	103.9	101.3	102.6
1971 III	115.0	108.8	112.9	110.3	104.3	105.7	101.9	103.7
1971 IV	115.7	110.5	113.8	111.7	103.6	104.7	101.6	103.0
1972 I	118.3	111.5	114.4	112.6	105.1	106.2	103.4	102.7
1972 II	120.0	112.0	115.4	113.2	106.0	107.2	104.0	103.1
1972 III	121.9	112.3	116.5	113.8	107.1	108.5	104.6	103.7
1972 IV	123.3	113.0	117.5	114.7	107.5	109.1	104.9	104.0
1973 I	126.5	114.6	118.3	115.9	109.1	110.4	107.0	103.2
1973 II	126.1	115.9	119.3	117.2	107.7	108.8	105.7	102.9
1973 III	127.0	117.1	120.3	118.3	107.3	108.4	105.5	102.8
1973 IV	128.0	117.6	121.4	119.0	107.6	108.9	105.4	103.3
1974 I	129.7	117.9	121.9	119.3	108.7	110.0	106.5	103.4
1974 II	128.5	119.1	122.8	120.4	106.7	107.9	104.7	103.1
1974 III	126.3	118.9	123.5	120.6	104.7	106.2	102.2	103.9
1974 IV	124.6	117.9	124.3	120.2	103.7	105.7	100.2	105.4

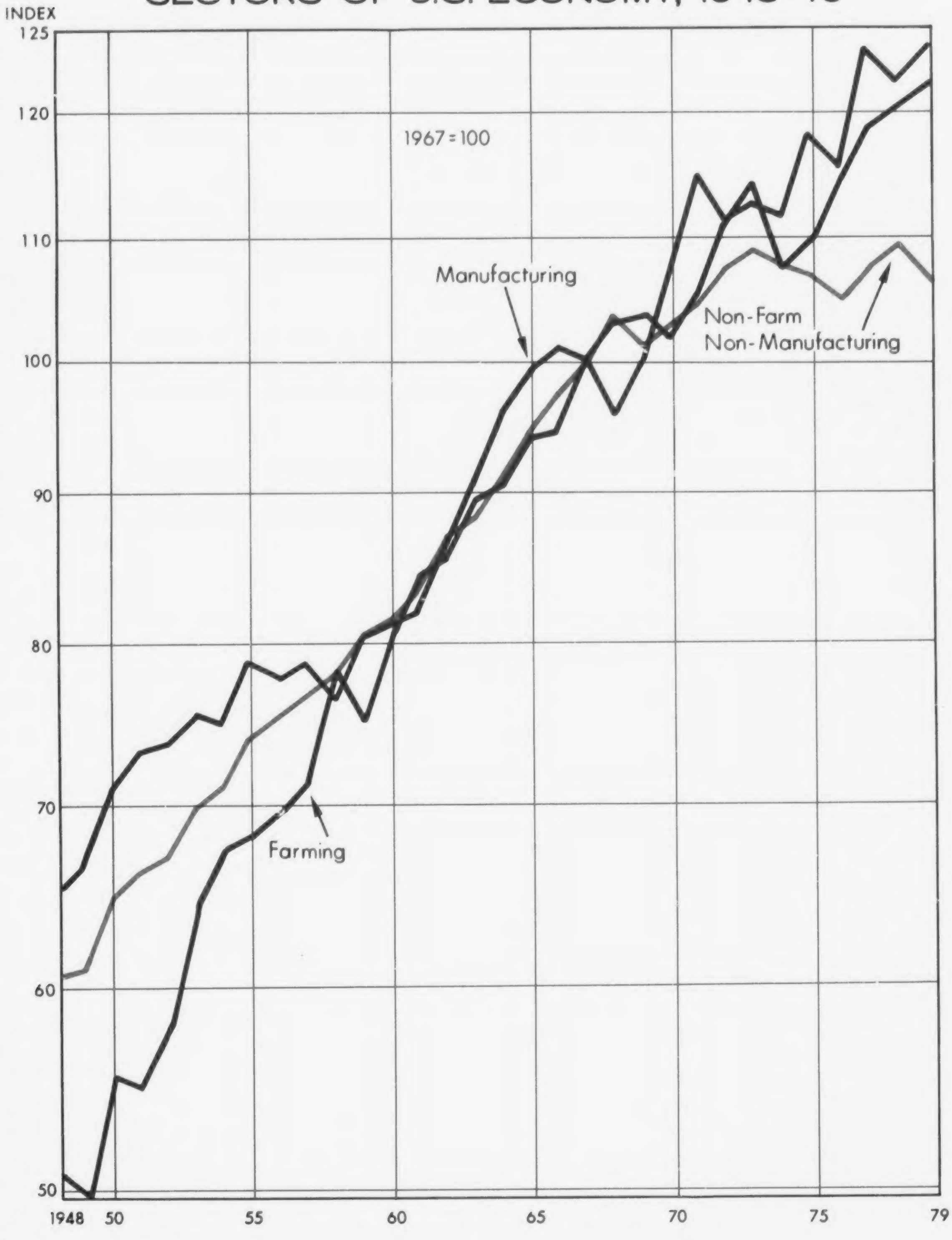
TABLE VII. PRIVATE BUSINESS ECONOMY NAD MAJOR SECTORS

5. Nonfarm, Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1975 I	124.8	115.9	124.2	118.9	105.0	107.7	100.4	107.2
1975 II	126.0	115.1	124.4	118.4	106.4	109.5	101.2	108.1
1975 III	127.6	116.1	124.9	119.2	107.0	109.9	102.1	107.7
1975 IV	128.1	117.6	125.4	120.4	106.4	108.9	102.2	106.6
1976 I	132.3	118.6	125.9	121.2	109.1	111.5	105.0	106.2
1976 II	133.3	118.8	126.6	121.6	109.6	112.2	105.3	106.5
1976 III	134.0	119.2	127.1	122.0	109.8	112.5	105.4	106.7
1976 IV	134.8	120.0	127.6	122.7	109.8	112.3	105.6	106.3
1977 I	139.0	121.5	128.2	123.9	112.2	114.4	108.4	105.5
1977 II	139.6	123.7	128.8	125.6	111.1	112.8	108.4	104.1
1977 III	142.0	124.9	129.5	126.6	112.1	113.6	109.6	103.7
1977 IV	142.7	126.0	130.1	127.5	111.9	113.3	109.7	103.2
1978 I	144.6	127.1	130.8	128.4	112.5	113.8	110.5	102.9
1978 II	148.7	130.5	131.5	130.9	113.6	114.0	113.0	100.8
1978 III	149.8	131.1	132.3	131.6	113.9	114.3	113.3	100.9
1978 IV	152.1	133.0	133.0	133.1	114.3	114.3	114.3	100.0
1979 I	152.1	134.1	133.8	134.1	113.4	113.4	113.7	99.8
1979 II	150.3	135.0	134.6	134.9	111.4	111.4	111.6	99.7
1979 III	150.9	136.6	135.3	136.3	110.7	110.4	111.5	99.0
1979 IV	152.6	137.4	136.0	136.9	111.4	111.1	112.2	99.0
1980 I	153.3	137.9	136.6	137.5	111.5	111.2	112.3	99.1

TOTAL FACTOR PRODUCTIVITY IN MAJOR SECTORS OF U.S. ECONOMY, 1948–79



SOURCE: American Productivity Center

TABLE VII. PRIVATE BUSINESS ECONOMY NAD MAJOR SECTORS

5. Nonfarm, Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital Labor Ratio
1957 I	66.3	89.4	76.5	85.2	77.9	74.2	86.7	85.5
1957 II	66.8	89.7	77.1	85.6	78.1	74.5	86.7	86.0
1957 III	66.9	89.8	77.6	85.8	78.0	74.5	86.3	86.4
1957 IV	67.0	88.5	78.2	85.1	78.8	75.7	85.7	88.4
1958 I	66.4	87.4	78.5	84.4	78.6	75.9	84.6	89.8
1958 II	66.6	86.5	79.0	84.0	79.3	77.0	84.3	91.3
1958 III	67.5	87.6	79.5	84.9	79.5	77.1	84.9	90.8
1958 IV	69.6	88.8	79.9	85.8	81.1	78.4	87.1	90.0
1959 I	70.8	89.4	80.6	86.4	81.9	79.2	87.8	90.1
1959 II	72.3	90.5	80.8	87.3	82.8	79.9	89.5	89.2
1959 III	72.2	91.0	81.2	87.8	82.3	79.3	89.0	89.2
1959 IV	72.5	91.1	81.6	87.9	82.5	79.6	88.9	89.6
1960 I	73.6	91.0	82.1	88.0	83.6	80.8	89.7	90.2
1960 II	73.7	91.7	82.4	88.6	83.2	80.4	89.5	89.9
1960 III	73.7	91.8	82.8	88.8	82.9	80.2	89.0	90.2
1960 IV	73.5	91.6	83.2	88.8	82.7	80.2	88.4	90.7
1961 I	74.4	91.3	83.5	88.8	83.9	81.5	89.1	91.5
1961 II	75.1	90.7	84.0	88.5	84.9	82.8	89.5	92.5
1961 III	75.6	91.0	84.4	88.8	85.1	83.1	89.6	92.7
1961 IV	75.2	91.6	84.8	89.4	84.1	82.1	88.7	92.6
1962 I	78.8	91.8	85.4	89.7	87.9	85.9	92.3	93.0
1962 II	79.8	92.9	85.9	90.6	88.0	85.9	92.9	92.5
1962 III	80.5	92.6	86.4	90.6	88.9	86.9	93.2	93.2
1962 IV	80.9	91.8	86.9	90.3	89.6	88.1	93.1	94.6
1963 I	81.3	92.6	87.6	91.0	89.3	87.8	92.8	94.6
1963 II	81.9	93.2	88.0	91.5	89.5	87.9	93.0	94.5
1963 III	83.3	93.5	88.5	91.9	90.6	89.1	94.1	94.7
1963 IV	83.7	94.2	89.0	92.6	90.4	88.8	94.0	94.4
1964 I	85.4	95.0	89.7	93.3	91.5	89.9	95.2	94.4
1964 II	86.2	95.3	90.3	93.7	92.0	90.4	95.5	94.7
1964 III	87.5	95.6	90.8	94.1	93.0	91.5	96.3	95.0
1964 IV	88.4	96.8	91.4	95.1	93.1	91.4	96.8	94.4
1965 I	90.1	97.6	91.9	95.8	94.1	92.3	98.0	94.2
1965 II	91.7	98.5	92.6	96.6	94.9	93.1	99.0	94.1
1965 III	92.4	98.0	93.3	96.6	95.7	94.2	99.0	95.2
1965 IV	95.4	98.6	94.1	97.2	98.1	96.7	101.4	95.4

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MULTIPLE—INPUT PRODUCTIVITY INDEX

December 1980

Sector	Average Annual Rates of Change of Multiple—Input Productivity[1] 1948-65	1965-73	1973-78	1978-79
	%	%	%	%
Private Domestic Business	3.0	2.1	1.1	— 0.6
Manufacturing	2.5	1.7	0.9	0.4
Mining	3.4	1.0	— 2.3	— 5.4
Construction	2.7	— 2.0	— 1.5	— 6.8
Transportation	2.8	3.0	0.9	— 0.6
Communications	5.2	3.4	5.0	2.6
Public Utilities	5.2	1.7	— 1.1	— 2.8
Trade (Wholesale and Retail)	2.2	2.8	0.5	— 0.4
Finance and Insurance	0.6	— 0.6	1.3	— 1.6
Real Estate	3.4	1.4	3.3	0.8
Services (Professional and other)	1.5	2.4	0.5	— 3.3
Agriculture	3.7	2.1	1.3	1.8

[1] Weighted capital/labor input productivity

AMERICAN
PRODUCTIVITY
CENTER

CHANGE IN TITLE

This productivity index series, which up-dates John Kendrick's Total Factor Productivity Index series (published intermittently since 1961 under programs of the prestigious National Bureau of Economic Research and the Conference Board) is now designated as the

MULTIPLE-INPUT PRODUCTIVITY INDEX

Subscribers to this service are herewith advised that the approach, basic data utilized, and methodology are precisely the same as those applied in Dr. Kendrick's earlier work and in the American Productivity Center's initial release (August 1980) entitled *Total Factor Productivity Index.*

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INTRODUCTORY NOTE

This pamphlet up-dates, with essential revisions, the indexes and growth-rate data presented in the August 1980 initial volume of the American Productivity Center weighted capital/labor input productivity series ("Total Factor Productivity Index"). The statistics herein include, for the first time, 1979 indexes for the ten major sectors of the economy and the twenty major manufacturing industry groups (classified according to SIC two-digit definitions). The quarterly series presents, for the major segments of the economy, revised 1980 first and second quarter indexes and preliminary third quarter indexes.

The remaining issue under the 1980 subscription, tentatively scheduled for March 1981, will present fourth quarter 1980 and preliminary 1980 annual indexes for the major segments.

The first issue under the 1981 subscription (June 1981) will provide first quarter 1981 indexes and revised 1980 annual indexes for the major segments, and preliminary annual indexes for the 10 sectors and 20 manufacturing industry groups.

Also, beginning with the June 1981 issue, the series will include two new features:

1. Tabulations reflecting actual levels of productivity for each of the major sectors and industries for selected key years, in terms of output per hour; output per unit of capital input; the combined weighted capital and labor input -- generally identified as "total factor" productivity; and capital stock per hour.
2. Annual and quarterly average trends for the aggregations of "goods producing" industries and "private services" industries. This specific development has been sponsored by American Express.

TECHNICAL NOTES

The index and growth rate data presented in this pamphlet reflect not only up-dating, but also revisions in some of the series, to reflect significant recent Bureau of Labor Statistics revisions in the labor input series, and also modest revisions in the capital input for some industries, to make annual and quarterly index series more internally consistent.

In order to avoid either errors or uncertainties by users of this data, the APC presents in Table V. revised indexes for key prior years (1948, 1965 and 1973) that are comparable with the indexes presented herein for 1977, 1978 and 1979 (and 1980 quarterly figures). The following items are of specific relevance to new and established users of the APC index series:

1. The earlier year indexes shown in the initial (August 1980) publication remain essentially valid for industries and sectors other than: total private business economy; farming; non-farm, non-manufacturing; finance and insurance; real estate; and tobacco.

2. Those users who desire a copy of the revised index series 1948 to date for any one of the individual segments listed above may obtain a print-out copy by writing the APC (Measurement Department).

3. The entire data series necessarily will be revised early in 1981 in conformance with the Department of Commerce's Bureau of Economic Analysis revisions in the National Income and Product Accounts series to the new 1977 Census benchmarks. Since this revision is scheduled for completion in the spring of 1981, APC's June 1981 issue will present a complete set of indexes reflecting such revisions, as far back in the series as is required.

4. During calendar 1981, research and developmental work will be carried forward to add coverage for new three- or four-digit manufacturing industry series for such of the industries as are nominated, found to be feasible, and funded. Those interested in learning more about sponsorship of such additions should contact the APC Measurement Department (713-681-4020).

5. Developmental work is continuing on the feasibility of shaping new "total productivity" series, 1967 to date, for key manufacturing industry groups and perhaps, for the total private domestic business economy. Such series can provide new partial productivity inputs, to add to this current labor and capital partial series. Also, additional "trade-off" ratios, (such as energy/labor) will be constructed as relevant. When this developmental activity yields usable results, the new series will be added to complement the continuing weighted capital/labor ratio indexes.

SUMMARY NOTE ON SOURCES OF DATA AND METHODOLOGY

Basically, the sources of data and methodology used to estimate total factor productivity are the same as detailed in Productivity in the United States, Trends and Cycles (The John Hopkins University Press, 1980), by Drs. John W. Kendrick and Elliot S. Grossman.

A. Annual Series

Real Output

Output is the annual series of gross product originating in constant 1972 dollars as estimated by the Bureau of Economic Analysis (B.E.A.) in its National Income and Product Accounts program. Each industry is used directly as published except for services, which excludes in the APC series real output for Households and Institutions (see Survey of Current Business, Table 6.2). Further, the farming sector includes S.I.C. 01-02. Agricultural services, forestry and fisheries (S.I.C. 07-09) are excluded from this sector.

Output for the manufacturing and non-farm, non-manufacturing segments are the sum of their individual industry outputs. The sum of these two segments plus farming yields output for the private domestic business economy. Output for non-financial corporate business is taken directly from the Bureau of Labor Statistics (series) which is based on B.E.A. estimates.

Labor Hours

In general, labor hours are based on B.L.S. data. The figures represent total hours paid for, not hours actually worked. Employment for each industry includes employees on nonagricultural payrolls (production and nonproduction workers), self-employed (formerly termed proprietors), and unpaid family workers. The figures on all persons employed are then multiplied by their respective average hours worked per week and the sum total of these products is multiplied by 52 weeks to derive hours of all persons.[1]

The services industry is adjusted as follows: Employment data on health services (S.I.C. 80), legal services (S.I.C. 81), and educational services (S.I.C. 82) are substracted from total services for all three components of employees. Average hours worked are not, however, adjusted.

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[1] This approach is consistent in theory with the "hours paid for" concept assuming vacation time, sick leave, holidays, etc., are in fact paid for, as provided in many union agreements.

The B.L.S. manufacturing labor hours (all persons) is used as a control total because the recent historical revision (dating back to 1948) applied to nonproduction worker average weekly hours which is only available at the aggregate level. The adjustments generally ranged less than one percent, plus or minus.

Capital Input

The APC productivity data uses the same sources of data and methodology to estimate real capital as the Kendrick-Grossman study. The only changes are with respect to the most recent revisions in investment data, deflators, and inventory. For the most part, these revisions are minor and only affect the more current years.

In general, fixed capital is estimated using the perpetual inventory method. That is,

$$GK_t = GK_{t-1} (1-R) + GI_t$$

where, GK_t is current fixed capital,

GK_{t-1} is fixed capital from the previous period,

R is the retirement rate, and GI_t is the current level of investment.

Added to GK_t, fixed capital, are inputations for land and end-of-period inventory. The source for the land inputation is the 1972 ratio of land to fixed assets, as published by the IRS. The only exception is for farming, where direct estimates from the Department of Agriculture are obtained.

Sector fixed capital is controlled to B.E.A. estimates except for non-farm, non-manufacturing. That is, farming and nonfinancial corporate business end-of-year fixed capital is taken to be the B.E.A. estimates. The manufacturing industries are adjusted so as to agree with the B.E.A. estimate of fixed capital. Further, the residential tenant-occuped (i.e., rental) portion of real estate is taken directly from B.E.A. estimates. The remaining fixed capital estimates for the non-farm, non-manufacturing industries are a continuation of the original Kendrick estimates as published in The Conference Board study, "The National Wealth of the United States," (Report 698, 1976).

B. Quarterly Sector Estimates

Output

Quarterly output for the manufacturing and the nonfinancial corporate business sectors are the B.L.S. estimates. Output for the farming and the non-farm, non-manufacturing sectors are quarterly interpolations of the annual gross products originating data using the quarterly pattern of the analogous B.L.S. sectors as the interpolating series.

Labor Hours

Quarterly hours worked for the manufacturing, nonfinancial corporate business, and farming sectors are taken directly from the B.L.S. The quarterly non-farm, non-manufacturing sector labor hours are the quarterly interpolation of the annual hours using the derived (i.e., Nonfarm Less Farm) B.L.S. quarterly hours series for this sector as the interpolating series.

Capital Input

Fixed capital, land and inventory for the fourth quarter of each year are the same as for the annual sectors. Quarterly figures on inventory are taken from the *Survey of Current Business* and the B.L.S. land series is based on the ratio of land to fixed capital for each year using the annual data. Finally, quarterly interpolation is based on quarterly interpolated investment series for each of the sectors and using the retirement rates for each year as implied by the annual fixed capital and investment data.

The private domestic business economy sector is the sum of the three component sectors: farming, manufacturing, and non-farm, non-manufacturing.

ANALYSIS: RECENT PRODUCTIVITY DYNAMICS

A. Annual Data

For the private domestic business economy, total factor productivity (the weighted average of labor and capital partial productivity ratios) declined 0.6% in 1979, an acceleration of the downward trend in productivity growth during the past fifteen years. This weighted average decline in multiple-input productivity reflected a sharp drop in labor productivity (-1.1%) and an extremely modest increase (0.2%) in capital productivity.

The significant drop in labor productivity in calendar 1979 is clearly traceable to the abrupt reversal of an almost century-long decline in hours worked per employee. This average jumped 3.2% in 1979, in sharp contrast to annual declines of 0.5% or more per year in recent history. There was also an unusual (3.8%) increase in total hours worked by all employees in the economy as a whole.

The rise in labor input was especially sharp in the non-farm, non-manufacturing group of industries, an average of 5.0%, with the following major sectors leading the way: mining, 11.5%; services, 8.5%; contract construction, 8.3%; communications, 5.6%; and public utilities, 4.9%.

The capital/labor ratio for these same segments also declined sharply: mining, -9.3%; contract construction, -9.5%; services, -5.3%; and public utilities, -1.3%. For the private business economy as a whole, the capital/labor ratio declined 1.3%; and for non-farm, non-manufacturing as a whole, 2.9%. For manufacturing industry, the capital/labor ratio rose, but at less than the averages for earlier periods. This drop in the capital/labor ratio reflects primarily the leap in aggregate hours worked, since capital input in 1979 rose more than the 1973-78 average, and was roughly on a par with the average growth in earlier years.

Many economists attribute the labor-for-capital trade-off mainly to the energy crisis, attributable to the 1973 and 1979 OPEC crude oil price shocks, slow development of alternative economical energy sources, and the continuance of double digit inflation. The result has been the postponement of the introduction of efficiency-improving but energy-intensive new machinery and equipment, with more employee hours applied to maintaining and operating existing equipment, frequently with energy-saving adjustments which lower efficiency.

Also, the 1979 jump in aggregate hours, especially in the service industries, is partially attributed to the necessity for providing services both in the evenings and on week-ends, to accomodate the growing proportion of working women.

For the sectors of the economy, the productivity experience in calendar 1979 was generally unfavorable, with modest gains for farming, communications, rail transportation and manufacturing far outweighed by substantial declines in the non-farm, non-manufacturing sectors ranging up to 6.8% for contract construction and 5.4% for mining.

In individual manufacturing industry groups, modest-to-sizeable increases appear in half of them, ranging up to the furniture group's 6.0% rise. In contrast, sizeable declines were recorded by the transportation equipment and petroleum industries.

B. Quarterly Data

The rise in total factor productivity in the third quarter of 1980 -- based on preliminary estimates -- signaled that the decline in business activity may be near its end. Total factor productivity (TFP) for the private domestic business economy rose at an annual average rate of 0.9% from the second to the third quarter of 1980, after falling at a 6.3% rate in the (revised) second quarter of 1980. Output per unit of labor rose at a somewhat brisker annual rate of 1.9% after declining at a 2.2% rate in the second quarter of 1980.

Normally, recovery in productivity sets the stage for subsequent recovery of economic activity. According to the National Bureau of Economic Research, the arbitrar in these matters, the current decline in business activity began in January 1980. During the early stages of recessions, businesses are able to adjust their labor forces through layoffs and freezes on hiring. Therefore, the level of employment stays relatively high. However, this is not the case for capital, businesses' plant and equipment. First of all, capital cannot be laid off. Plants may be temporarily shut down to minimize some cost, but these facilities still are considered to be available input into business operations. Secondly, plans to invest in plant and equipment are long term by their nature and are generally continued during the early stages of a business downturn. If the capital measure were in some manner adjusted for capacity utilization, a reported drop in TFP would not have been so severe. Unfortunately, no one good approach for adjusting capital for capacity utilization exists, though several approaches have been tried by researchers.

Rates of growth in total factor productivity started to slow down after the second quarter of 1978 and actually were negative for five of six quarters from the beginning of 1979 through the second quarter of 1980. As usual, capital input continued to rise throughout this period, albeit at slightly slower rates. However, except for a brief period early in 1979, labor input continued to rise at a brisk rate until the first quarter of 1980.

The estimated rise in productivity of the economy in the third quarter of 1980 is a result of an increase in output in the non-farm, non-manufacturing sector, which rose 6.8% after falling at a 7.5% in the second quarter of 1980. Total factor productivity for this sector rose 5.1% after dropping at a 2.5% rate in the previous quarter. This is in sharp contrast to the estimated deline in manufacturing and in farming.

Most of the decline during the current recessionary experience has been within the manufacturing sector. Manufacturing has experienced declines in output since the second quarter of 1979. In the second quarter of 1980, output dropped at a 21.8% annual rate and the preliminary data indicates a 10.7% drop in the third quarter as well. Concurrently, labor input has also declined at a fairly steady pace throughout this period. Capital continued a modest increase. Thus, total factor productivity has declined during the last four quarters and two of the three previous quarters. In the third quarter of 1980 estimated total factor productivity in manufacturing dropped at a 6.0% annual rate after falling 11.3% in the second quarter.

Farming, which is a very volatile sector and also subject to significant errors of estimation in preliminary series, experienced a 25.3% annual-rate decline in its total factor productivity in the third quarter of 1980. However, this decline is mainly due to the 23.2% drop in real output in this sector -- which in turn reflects the severe summer drought.

Revised data for the second quarter of 1980 for the nonfinancial corporate business sector indicates that total factor productivity dropped at a 5.5% annual rate. (Third quarter data is not available at this time for this sector.)

All sectors experienced strong growths in their capital-labor ratios during the past two quarters, as would be expected when labor is being laid off and capital is rising. It is interesting that the rate of substitution of capital for labor for the non-farm, non-manufacturing industries is considerably less than that of manufacturing. For example, in the third quarter of 1980, the capital-labor ratio for manufacturing rose at an 11.2% rate, in contrast to the very weak 0.2% increase for the non-farm, non-manufacturing sector. While capital input for both sectors rose at close to a 2% rate, labor input declined 8.3% within manufacturing and rose 1.6% within non-farm, non-manufacturing.

ANALYSIS: PRODUCTIVITY AND THE BUSINESS CYCLE

It has been long recognized that productivity plays an important role in the business cycle. Historically,[1] productivity slows down before the cyclical peak -- if not in absolute terms at least in its rate of growth. In contrast, hourly compensation rates do not decline, therefore, the slowing of productivity puts an upward pressure on unit labor costs. The rise in unit labor costs generally runs ahead of prices, thereby squeezing profit margins. With a fall in profit margins, businesses become bearish, experience a decline in internal funds, and pull back on their investment plans by reducing orders for new equipment and construction contract awards. Thus, the decleration in productivity plays a crucial rose in reducing aggregate business activity.

Subsequently, productivity helps set the stage for the recovery of the general economy. Productivity begins to accelerate before the cyclical trough, thereby reducing unit labor costs, enhancing profit margins, transmitting bullish expectations, and generally encouraging a rise in business activity.

Now that preliminary data are available for the third quarter of the current business downturn, we can see if productivity and related factors are tracking as pictured in the scenario as presented above. Chart 1 examines the rate of growth of toal factor productivity -- calculated at an average annual rate -- for the six previous recessions[2] and the current experience. Generally, TFP begins to decelerate a year and a half before the peak quarter. Notice, too,

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[1] Wesley C. Mitchell, Business Cycles, (Berkeley: University of California Press, 1913); also see, Geoffrey Moore, "Productivity, Costs and Prices: New Light from an Old Hypothesis," in National Bureau of Economic Research, Explorations in Economic Research (Winter 1975): 1-17; J. W. Kendrick and E. S. Grossman, Productivity in the United States, Trends and Cycles. (Baltimore: The Johns Hopkins University Press, 1980): 82-99.

[2] Dates of peaks and troughs of business cycles in the United States as determined by the National Bureau of Economic Research:

Peak	Trough
1949 IV	1949 IV
1953 II	1954 II
1957 III	1958 II
1960 II	1961 I
1969 IV	1970 IV
1973 IV	1975 I
1980 I	?

that there tends to be a jump two quarters before the peak. Then, TFP begins to accelerate one quarter after the peak, setting the stage for recovery. The recent tracking of TFP follows this same pattern, but the deceleration is much more severe. While on average TFP continues to grow at positive rates until one quarter after the peak -- albeit at lower rates -- TFP has actually been falling one year prior to the peak of 1980 I. The current experience appears to be following past patterns, since TFP rose two quarters after the peak.

Total factor productivity is, of course, a weighted average of labor and capital partial productivity ratios. Charts II and III track the cyclical paths of these two partial productivity ratios. Labor productivity slows down, but does not decline during the six quarters before a cyclical peak, at least not on average. Labor productivity does begin to accelerate one quarter after the cyclical peak, as does TFP. The current experience shows a much more severe pattern of negative rates of change beginning one year before the 1980 I peak. Both the historical and current quarterly changes of labor productivity start to rise one quarter after the cyclical peak.

Output per unit capital input has a similar pattern, but actually exhibits negative rates of growth one year after the peak. The current cyclical pattern is considerably more severe going into the cycle. On average, output per unit of capital falls 5.5% in the first quarter after the cyclical peak. This time around, however, capital productivity dropped at a 13.6% rate (over the previous quarter). The third quarter 1980 figure, (two quarters after the peak), falls at a less severe rate of 1.0%, much less than the average rate of decline of 6.4% during the previous six business cycles.

Chart IV presents the cyclical pattern of a measure of the squeeze on profit margins: the ratio of prices to unit labor costs.[3] Unlike the previous charts, this one presents the patterns in terms of their relationship to the peak value. That is, the ratio is measured as a percent of the peak (peak value = 100%). Therefore, Chart IV exhibits the relative level of the price-unit labor cost ratio. Over the past six recessions, the price-unit labor cost ratio underwent a steady decline both before and after the peak. Typically, going into the business downturn profit margins are squeezed tighter until at least one year after the peak. The current trend of the profit margin measures follows the historical average pattern except for two differences. First, the ratio of prices to unit labor costs is entering the current cycle at higher than average levels, (102.6 versus 101.1, respectively). And, second, the profit-margin jumps above the cyclical peak only two quarters after the peak, unlike the average which is still below the peak one year later.

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[3] These figures are based on the B.L.S. Private Business Sector (All Persons).

Chart V presents this ratio again, but measured in terms of its quarter to quarter growth rate. The price-unit labor cost ratio decelerates a year and a half previous to the start of the recession, squeezing profit margins. One quarter after the cyclical peak it begins to accelerate, enhancing profit margins and setting the stage for the subsequent recovery. The current trend of this ratio is following the average experience of past recessions except for the severe drop in the first quarter of 1979, and the recovery is much sharper in the second quarter after peak (i.e., 1980, III), when the price-unit labor cost ratio rises 3%.

CHART I
TOTAL FACTOR PRODUCTIVITY

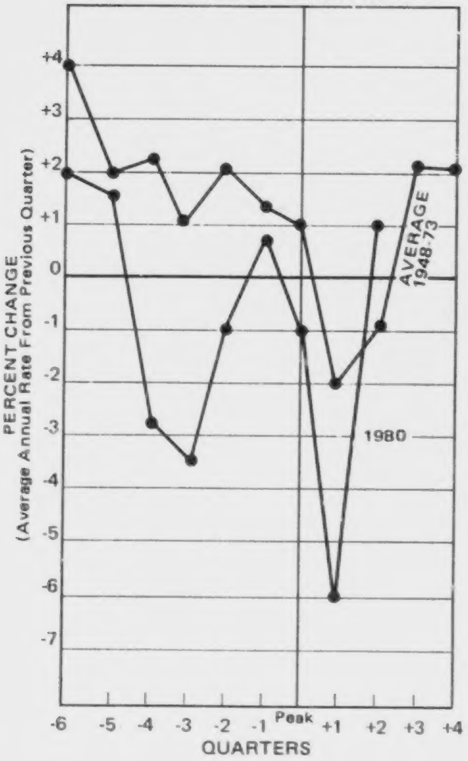


CHART II
OUTPUT PER UNIT LABOR

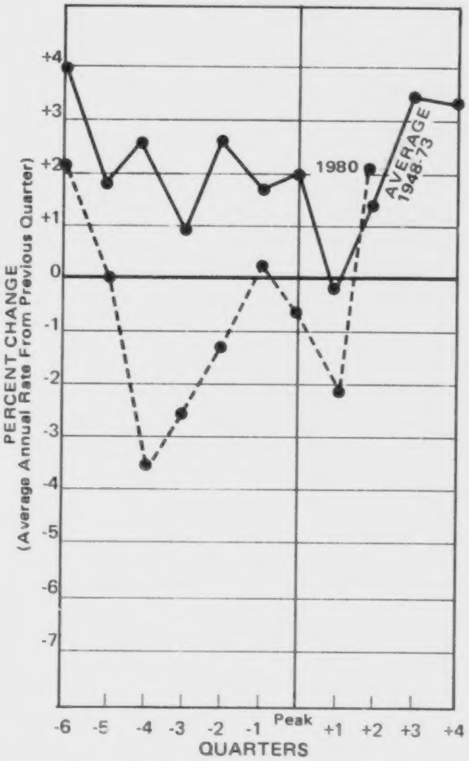


CHART III
OUTPUT PER UNIT CAPITAL

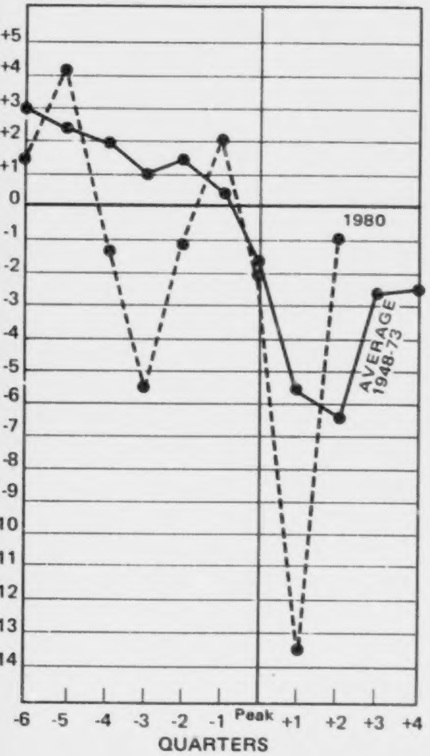


CHART IV
PRICE-UNIT LABOR COSTS RATIO
(PERCENT OF PEAK)

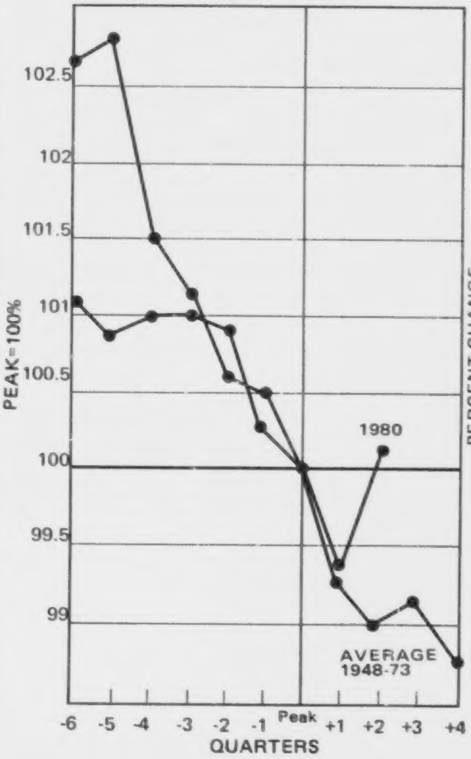
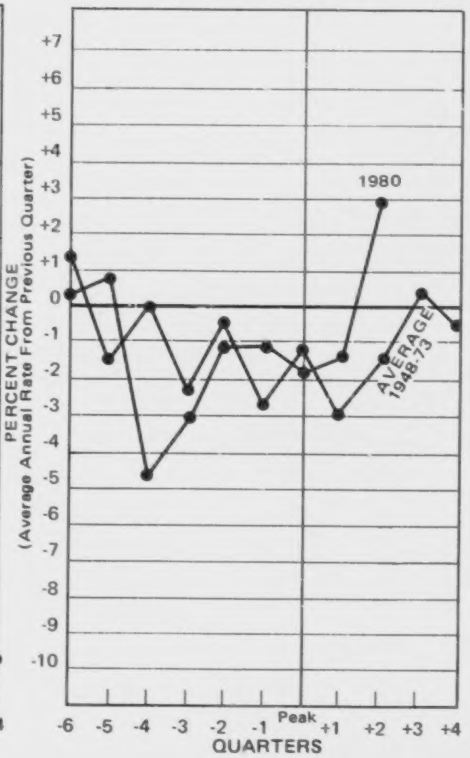


CHART V
PRICE-UNIT LABOR COSTS RATIO
(PERCENT CHANGE)



DATA FOR CHARTS

Chart I. Total Factor Productivity

	-6	-5	-4	-3	-2	-1	Peak	1	2	3	4
Average 1948-73	3.7	2.1	2.5	1.2	2.3	1.4	1.0	-1.8	1.0	1.5	1.5
1980	2.0	1.5	-2.7	-3.5	-1.0	0.7	-1.1	-6.3	0.9	-	-

Chart II. Output per Unit Labor

	-6	-5	-4	-3	-2	-1	Peak	1	2	3	4
Average 1948-73	4.0	2.0	2.6	1.1	2.6	1.8	2.0	-0.2	1.3	3.3	3.2
1980	2.1	0	-3.5	-2.5	-1.2	0.1	-0.6	-2.2	1.9	-	-

Chart III. Output per Unit Capital

	-6	-5	-4	-3	-2	-1	Peak	1	2	3	4
Average 1948-73	3.0	2.4	1.9	1.1	1.5	0.4	-1.6	-5.5	-6.4	-2.7	-2.5
1980	1.7	4.3	-1.1	-5.4	-0.8	2.0	-1.9	-13.6	-1.0		

Chart IV. Price-Unit Labor Cost Ratio (Peak Value 100.0%)

	-6	-5	-4	-3	-2	-1	Peak	1	2	3	4
Average 1948-73	101.1	100.9	101.0	101.0	100.9	100.3	100.0	99.3	99.0	99.1	98.8
1980	102.6	102.7	101.1	100.8	100.6	100.3	100.0	99.7	100.4		

Chart V. Price-Unit Labor Cost Ratio (Percent Change)

	-6	-5	-4	-3	-2	-1	Peak	1	2	3	4
Average 1948-73	1.2	-1.4	0.1	-2.0	-0.4	-2.3	-1.2	-2.7	-1.3	0.2	-0.2
1980	0.2	0.6	-4.8	-2.8	-0.9	-0.8	-1.7	-1.3	3.0	-	-

Table I
Total Factor, Labor and Capital Productivity, By Major Segment of the Economy,
1948-79

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
1. Total Factor Productivity					
Private Domestic Business Economy	2.4%	3.0%	2.1%	1.1%	-0.6%
Farming	2.9	3.7	2.1	1.3	1.8
Manufacturing Industry	2.0	2.5	1.7	0.9	0.4
Nonfarm Nonmanufacturing Industry	2.1	2.6	1.8	1.0	-1.3
Nonfinancial Corporate Business	1.9	2.5	1.3	0.7	-0-
2. Labor Productivity (Output per hour worked)					
Private Domestic Business Economy	2.9%	3.5%	2.6%	1.2%	-1.1%
Farming	4.8	5.4	5.0	2.5	4.6
Manufacturing Industry	2.6	3.0	2.4	1.5	0.9
Nonfarm Nonmanufacturing Industry	2.5	3.0	2.3	-0.9	-2.4
Nonfinancial Corporate Business	2.4	3.1	1.9	0.9	-0.4
3. Capital Productivity (Output per unit of capital input)					
Private Domestic Business Economy	1.2%	1.4%	0.8%	0.8%	0.2%
Farming	-0.1	-0.3	0.1	0.4	0.1
Manufacturing Industry	0.5	1.0	0.2	-0.7	-0.7
Nonfarm Nonmanufacturing Industry	1.2	1.5	0.8	1.3	0.4
Nonfinancial Corporate Business	0.5	0.8	-0.2	0.3	1.1

Table II
Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
1948-79

1. Output
(Real product, in 1972 dollars)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	3.6%	3.8%	3.8%	2.7%	2.7%
Farming	0.9	0.9	0.9	1.1	1.9
Manufacturing Industry	3.5	4.0	3.6	1.8	3.1
Nonfarm Nonmanufacturing Industry	3.9	4.0	4.1	3.2	2.6
Nonfinancial Corporate Business	4.3	4.6	4.8	2.6	3.1

2. Labor Input
(Hours worked)

	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	0.7%	0.3%	1.1%	1.5%	3.8%
Farming	-3.7	-4.2	-3.9	-1.4	-2.6
Manufacturing Industry	0.9	1.0	1.2	0.2	2.2
Nonfarm Nonmanufacturing Industry	1.4	0.9	1.7	2.3	5.0
Nonfinancial Corporate Business	1.9	1.5	2.8	1.7	3.5

Table II (Cont'd)
Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
1948-79

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
3. Capital Input					
Private Domestic Business Economy	2.4%	2.4%	2.9%	1.9%	2.4%
Farming	1.0	1.2	0.8	0.7	1.8
Manufacturing Industry	3.0	2.9	3.5	2.5	3.8
Nonfarm Nonmanufacturing Industry	2.6	2.5	3.2	1.9	2.2
Nonfinancial Corporate Business	3.8	3.7	5.0	2.3	2.0
4. Capital - Labor Ratio					
Private Domestic Business Economy	1.7%	2.1%	1.8%	0.4%	-1.3%
Farming	4.9	5.7	4.9	2.1	4.5
Manufacturing Industry	2.1	2.0	2.2	2.2	1.6
Nonfarm Nonmanufacturing Industry	1.2	1.6	1.5	-0.5	-2.9
Nonfinancial Corporate Business	1.9	2.2	2.1	0.6	-1.5

Table III a.

Total Factor Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	2.4%	3.0%	2.1%	1.1%	-0.6%
Farming	2.9	3.7	2.1	1.3	1.8
Manufacturing	2.0	2.5	1.7	0.9	0.4
Food	2.7	2.7	2.5	3.0	0.8
Tobacco	2.4	2.4	3.2	1.0	4.9
Textiles	3.2	3.7	2.2	3.2	3.0
Apparel	2.5	2.0	3.2	3.3	3.7
Lumber	2.9	4.9	0.7	-0.1	-0.2
Furniture	1.7	2.2	1.2	1.0	6.0
Paper	2.1	2.1	3.8	-0.9	1.8
Printing & Publishing	1.6	2.5	0.5	0.1	0.2
Chemicals	2.9	3.5	3.6	-0.2	1.7
Petroleum	2.2	3.0	1.2	1.5	-3.8
Rubber	1.7	2.2	1.7	-0.1	1.2
Leather	1.1	0.9	1.8	0.6	2.9
Stone, Clay & Glass	1.4	1.9	0.6	1.1	-0.2
Primary Metals	-0.1	0.7	0.3	-3.5	-0.3
Fabricated Metals	1.1	1.5	0.9	-0.1	0.6
Machinery, exc. Elec.	1.0	1.3	1.1	-0.3	0.8
Electrical Machinery	3.5	4.3	3.1	1.6	1.2
Transportation Equipment	2.7	3.3	1.4	2.6	-4.0
Instruments	2.4	3.4	1.9	-0.1	-0-
Miscellaneous Manufac.	2.6	2.1	3.0	3.6	1.1
Nonfarm Nonmanufacturing	2.1	2.6	1.8	1.0	-1.4
Mining	1.8	3.4	1.0	-2.3	-5.4
Construction	0.7	2.7	-2.0	-1.5	-6.8
Transportation	2.5	2.8	3.0	0.9	-0.6
Railroad	2.8	4.1	2.1	-0.2	3.5
Nonrail	1.9	1.6	3.1	1.2	-1.6
Communications	4.7	5.2	3.4	5.0	2.6
Public Utilities	3.2	5.2	1.7	-1.1	-2.8
Trade	2.1	2.2	2.8	0.5	-0.4
Finance & Insurance	0.4	0.6	-0.6	1.3	-1.6
Real Estate	2.9	3.4	1.4	3.3	0.8
Services	1.6	1.5	2.4	0.5	-3.3
Nonfinancial Corporate Business	1.9	2.5	1.3	0.7	-0-

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	2.9%	3.5%	2.6%	1.2%	-1.1%
Farming	4.8	5.4	5.0	2.5	4.6
Manufacturing	2.6	3.0	2.4	1.5	0.9
Food	3.2	3.1	3.1	3.6	1.6
Tobacco	4.0	4.0	3.9	4.3	7.2
Textiles	4.1	5.0	2.5	4.0	3.1
Apparel	2.7	1.9	4.0	3.5	4.1
Lumber	3.1	4.2	1.8	1.2	0.4
Furniture	1.8	2.1	1.3	1.4	7.3
Paper	2.6	2.4	4.4	0.1	2.8
Printing & Publishing	1.7	2.4	1.3	0.2	-0.2
Chemicals	4.0	4.7	4.2	1.2	3.3
Petroleum	4.0	5.2	2.7	2.3	-4.2
Rubber	1.9	2.5	2.0	0.0	1.2
Leather	1.3	1.1	2.1	0.9	3.1
Stone, Clay & Glass	2.0	2.6	0.9	1.7	-0.1
Primary Metals	0.6	1.5	0.8	-2.8	-0.5
Fabricated Metals	1.6	2.1	1.3	0.5	0.7
Machinery, exc. Elec.	1.5	1.7	1.8	0.2	0.9
Electrical Machinery	3.9	4.4	3.9	2.1	1.4
Transportation Equipment	3.1	3.6	2.3	3.0	-2.0
Instruments	2.8	3.8	2.5	-0.3	-0.9
Miscellaneous Manufac.	3.1	2.8	3.5	3.4	1.5
Nonfarm Nonmanufacturing	2.5	3.0	2.3	0.9	-2.4
Mining	2.1	4.2	1.9	-4.3	-8.7
Construction	0.8	2.9	-1.8	-1.7	-7.5
Transportation	2.7	3.2	2.9	0.7	-1.2
Railroad	3.4	4.8	2.5	0.0	2.8
Nonrail	2.2	2.1	3.2	0.9	-2.2
Communications	6.1	6.5	4.8	6.9	2.3
Public Utilities	4.9	6.9	3.7	0.4	-3.7
Trade	2.4	2.6	3.2	0.6	-0.4
Finance & Insurance	0.7	1.0	-0.3	1.7	-1.4
Real Estate	2.3	3.1	1.5	0.8	-3.7
Services	2.1	2.1	3.3	0.1	-5.0
Nonfinancial Corporate Business	2.4	3.1	1.9	0.9	-0.4

Table III. c.

Capital Productivity
(Output per Unit of Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	1.2%	1.4%	0.8%	0.8%	0.2%
Farming	-0.1	-0.3	0.1	0.4	0.1
Manufacturing	0.5	1.0	0.2	-0.7	-0.7
Food	1.6	1.9	1.2	1.4	-0.9
Tobacco	1.1	0.7	3.0	-0.6	3.8
Textiles	-0.3	-1.3	1.1	1.1	2.5
Apparel	1.3	2.3	-0.9	1.6	1.4
Lumber	2.8	6.4	-1.3	-2.3	-1.0
Furniture	1.6	3.1	-0.2	-0.7	0.5
Paper	1.1	1.5	2.6	-2.9	-0.1
Printing & Publishing	1.1	3.0	-2.0	-0.3	1.3
Chemicals	1.3	1.7	2.6	-2.1	-0.2
Petroleum	1.3	1.6	0.7	1.2	-3.6
Rubber	0.8	1.2	0.8	-0.6	1.4
Leather	-0.6	-0.1	-1.5	-0.9	2.2
Stone, Clay & Glass	-0.3	-0.4	-0.1	-0.4	-0.6
Primary Metals	-2.2	-1.7	-1.3	-5.1	0.1
Fabricated Metals	-1.3	-1.4	-0.6	-2.2	0.2
Machinery, exc. Elec.	-0.7	-0.3	-1.1	-1.5	0.5
Electrical Machinery	2.2	3.8	0.3	0.1	0.4
Transportation Equip.	1.2	1.5	-1.7	1.5	-8.2
Instruments	0.8	1.4	-0.1	0.3	1.8
Miscellaneous Manufac.	-0.6	-2.5	0.7	4.2	-0.8
Nonfarm Nonmanufacturing	1.2	1.5	0.8	1.3	0.4
Mining	1.1	1.9	-0.3	0.6	0.7
Construction	-1.7	-1.8	-3.6	1.7	2.3
Transportation	1.7	0.8	3.4	2.0	2.7
Railroad	-0.1	-0.1	0.3	-0.9	5.8
Nonrail	-0.3	-2.3	2.5	2.2	1.2
Communications	1.5	1.0	1.5	3.5	3.0
Public Utilities	1.5	3.0	0.6	-1.9	-2.4
Trade	0.2	0.1	0.7	-0.1	-0.0
Finance & Insurance	-1.7	-1.5	-2.9	-0.3	-2.8
Real Estate	3.0	3.5	1.5	3.6	1.3
Services	0.1	-0.2	0.2	1.2	0.3
Nonfinancial Corporate Business	0.5	0.8	-0.2	0.3	1.1

Table III. d.

Capital-Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 79)

	Average Annual Rates of Change				
	1948-78	1948-65	1965-73	1973-78	1978-79
Private Domestic Business Economy	1.7%	2.1%	1.8%	0.4%	-1.3%
Farming	4.9	5.7	4.9	2.1	4.5
Manufacturing	2.1	2.0	2.2	2.2	1.6
Food	1.5	1.1	1.8	2.2	2.5
Tobacco	2.9	3.2	0.9	4.9	3.2
Textiles	4.4	6.4	1.4	2.9	0.6
Apparel	1.4	-0.4	5.0	1.9	2.7
Lumber	0.3	-2.0	3.1	3.6	1.3
Furniture	0.2	-1.0	1.5	2.2	6.8
Paper	1.5	0.9	1.7	3.1	2.8
Printing & Publishing	0.6	-0.7	3.3	0.4	-1.4
Chemicals	2.6	2.9	1.6	3.3	3.4
Petroleum	2.7	3.6	2.0	1.1	-0.5
Rubber	1.2	1.3	1.2	0.6	-0.2
Leather	1.9	1.2	3.6	1.8	0.9
Stone, Clay & Glass	2.3	3.0	1.0	2.1	0.5
Primary Metals	2.8	3.3	2.2	2.4	-0.6
Fabricated Metals	3.0	3.6	2.0	2.8	0.4
Machinery, exc. Elec.	2.2	2.0	3.0	1.8	0.5
Electrical Machinery	1.6	0.6	3.6	2.0	1.0
Transportation Equip.	1.9	1.0	4.1	1.5	6.7
Instruments	2.0	2.4	2.7	-0.5	-2.7
Miscellaneous Manufac.	3.7	5.5	2.8	-0.8	2.3
Nonfarm Nonmanufacturing	1.2	1.6	1.5	-0.4	-2.7
Mining	1.0	2.3	2.2	-4.9	-9.3
Construction	2.6	4.8	1.9	-3.3	-9.5
Transportation	0.9	2.3	-0.5	-1.3	-3.8
Railroad	3.5	4.9	2.3	0.9	-2.9
Nonrail	2.5	4.6	0.7	-1.3	-3.3
Communications	4.5	5.5	3.3	3.3	-0.7
Public Utilities	3.4	3.8	3.0	2.3	-1.3
Trade	2.2	2.6	2.5	0.7	-0.4
Finance & Insurance	2.4	2.4	2.7	2.0	1.5
Real Estate	-0.6	-0.3	-0.0	-2.7	-4.9
Services	1.9	2.3	3.1	-1.0	-5.3
Nonfinancial Corporate Business	1.9	2.2	2.1	0.6	-1.5

Table IV
Annual Indexes, For Sectors and Industries 1977, 1978 and 1979 (1967=100)

Table	Industry Segment	Total Factor Productivity			Output per Unit Labor			Output per Unit Capital			Capital-Labor Ratio		
		1977	1978	1979	1977	1978	1979	1977	1978	1979	1977	1978	1979
IV	1. Private Domestic Business Economy	117.1	118.5	117.8	122.5	123.0	121.6	107.2	110.1	110.4	114.3	111.6	110.2
	2. Nonfinancial Corporate Business	113.1	114.6	114.7	117.0	118.1	117.7	103.2	105.8	106.9	113.3	111.7	110.0
	3. Farming	120.4	118.1	120.2	151.7	148.3	155.0	107.4	105.5	105.6	141.2	140.5	146.8
	4. Manufacturing	118.7	119.7	120.1	127.7	128.3	129.5	99.8	101.3	100.6	127.9	126.7	128.7
	5. Nonfarm Nonmanufacturing	113.1	114.6	113.0	116.0	116.3	113.6	107.8	111.3	111.8	107.5	104.5	101.6
V	1. Mining	88.6	90.0	85.2	84.6	84.9	77.5	93.8	97.3	98.0	90.2	87.2	79.1
	2. Construction	80.0	75.1	70.0	80.4	74.8	69.2	79.8	85.0	86.9	100.8	88.1	79.7
	3. Transportation	116.1	119.3	118.6	113.7	115.7	114.3	127.1	136.7	140.4	89.4	84.6	81.4
	3a. Railroad	103.4	109.1	112.9	106.6	112.6	115.7	91.2	95.9	101.5	116.9	117.4	114.0
	3b. Nonrail	118.4	121.0	119.0	117.1	118.2	115.6	123.7	133.3	134.9	94.6	88.7	85.7
	4. Communications	146.8	156.1	160.3	173.5	184.1	188.3	122.2	130.2	134.1	142.0	141.4	140.4
	5. Public Utilities	103.4	102.5	99.6	127.5	124.9	120.2	92.7	92.4	90.2	137.6	135.1	133.4
	6. Trade	117.8	119.3	118.9	120.2	121.9	121.3	105.5	106.3	106.2	113.9	114.7	114.2
	7. Finance & Insurance	102.0	101.8	100.1	105.2	104.9	103.4	82.6	82.6	80.3	127.3	126.9	128.8
	8. Real Estate	122.9	126.1	127.1	112.0	105.9	102.0	125.1	129.3	130.9	89.5	82.0	78.0
	9. Services	115.0	117.9	114.0	118.8	120.8	114.8	103.4	107.8	108.2	114.9	112.1	106.1
	Manufacturing												
VI	1. Food	133.2	134.7	135.8	141.4	143.4	145.6	114.6	115.0	114.0	123.4	124.7	127.8
	2. Tobacco	131.6	128.6	134.9	167.8	163.7	175.4	117.4	114.9	119.3	142.9	142.5	147.0
	3. Textiles	130.3	136.6	140.6	135.8	142.9	147.3	114.2	118.5	121.5	118.9	120.6	121.3
	4. Apparel	139.1	143.7	149.0	148.5	153.4	159.8	102.5	105.3	106.7	144.8	145.7	149.7
	5. Lumber	104.6	103.0	102.9	119.5	117.2	117.7	84.6	83.7	82.9	141.2	140.0	141.9
	6. Furniture	117.8	119.7	126.9	120.7	122.1	131.1	101.3	104.9	105.4	119.2	116.4	124.4
	7. Paper	131.5	133.6	136.0	141.5	144.3	148.3	112.6	113.6	113.5	125.6	127.0	130.6
	8. Printing & Publishing	103.8	105.1	105.3	109.8	111.0	110.8	88.2	89.8	91.0	124.5	123.6	121.8
	9. Chemicals	133.2	133.6	135.8	147.5	149.8	154.7	115.2	113.6	113.4	128.0	131.9	136.4
	10. Petroleum	124.1	121.6	116.9	144.6	138.4	132.6	118.0	116.8	112.5	122.5	118.5	117.8
	11. Rubber	110.5	113.4	114.8	112.9	115.3	116.6	100.9	105.6	107.1	111.9	109.1	108.9
	12. Leather	124.4	123.0	126.6	127.6	126.9	130.7	97.5	93.9	95.9	130.9	135.1	136.3
	13. Stone, Clay & Glass	111.7	116.6	116.3	115.2	119.3	119.2	102.5	108.9	108.2	112.4	109.6	110.1
	14. Primary Metals	85.8	86.9	86.7	90.5	90.6	90.2	71.8	74.9	75.0	126.0	121.1	120.3
	15. Fabricated Metals	107.1	105.0	105.5	114.3	111.8	112.5	85.1	84.2	84.4	134.3	132.8	133.4
	16. Machinery exc. Electrical	108.5	108.0	108.8	117.4	116.3	117.4	86.6	87.2	87.6	135.6	133.4	134.1
	17. Electrical Machinery	131.1	133.9	135.5	142.6	145.2	147.3	101.6	104.8	105.3	140.3	138.5	139.8
	18. Transportation Equipment	129.5	130.1	124.9	139.3	139.9	137.0	103.6	104.4	95.9	134.5	134.0	143.0
	19. Instruments	116.3	115.3	115.3	120.8	118.8	117.7	101.6	102.2	104.0	119.0	116.3	113.1
	20. Misc. Manufactures	149.2	147.6	149.2	147.8	146.2	148.4	153.4	151.6	150.5	96.3	96.4	98.6

Table V
Annual Indexes,
For Sectors and Industries:
Revised Indexes For
1948, 1965 and 1973
(1967=100)

Revised Data for Selected Years

Table	Industry Segment	Total Factor Productivity			Output per Unit Labor			Output per Unit Capital			Capital-Labor Ratio		
		1948	1965	1973	1948	1965	1973	1948	1965	1973	1948	1965	1973
IV	1. Private Domestic Business Economy	58.1	95.4	112.2	51.9	93.8	115.6	77.7	98.8	105.7	66.9	94.9	109.4
	2. Nonfinancial Corporate Business	65.0	99.3	110.5	58.0	96.9	112.9	91.7	105.8	104.2	63.3	91.6	108.3
	3. Farming	50.5	93.8	110.7	36.4	88.6	121.0	108.1	102.8	103.4	33.7	86.1	126.7
	4. Manufacturing	65.9	99.7	114.4	60.0	98.4	118.9	87.6	103.5	104.8	68.5	95.1	113.4
	5. Nonfarm Nonmanufacturing	61.2	94.5	109.0	55.7	92.6	111.4	76.8	98.2	104.5	72.6	94.3	106.6
V	1. Mining	53.2	93.4	101.3	45.0	90.9	105.6	70.2	96.9	94.4	64.2	93.8	111.9
	2. Construction	60.7	94.9	80.9	58.4	94.4	81.6	143.6	105.2	78.2	40.7	89.7	104.3
	3. Transportation	56.3	89.9	113.9	52.2	88.9	111.7	81.9	94.4	123.7	63.7	94.1	90.4
	3a. Railroad	47.4	93.2	110.1	41.2	92.0	112.4	99.8	98.0	100.2	41.3	93.8	112.2
	3b. Nonrail	68.1	89.2	114.1	61.1	87.5	112.8	145.5	97.7	119.3	42.0	89.5	94.5
	4. Communications	39.6	93.8	122.3	31.3	90.9	132.2	82.7	97.5	109.7	37.8	93.2	120.4
	5. Public Utilities	39.9	94.7	108.5	29.5	91.8	122.7	58.7	96.6	101.5	50.2	95.1	120.9
	6. Trade	63.9	93.1	116.6	59.1	91.9	118.3	99.8	101.1	107.0	59.2	90.9	110.5
	7. Finance & Insurance	91.4	100.6	95.5	84.5	99.2	96.6	136.6	106.4	84.0	61.8	93.2	114.9
	8. Real Estate	54.1	96.0	107.1	53.6	90.6	101.9	54.0	96.4	108.5	99.3	94.0	93.9
	9. Services	74.1	95.4	115.2	65.2	93.0	120.2	103.3	100.5	101.8	63.1	92.5	118.1
	Manufacturing												
VI	1. Food	60.0	95.1	116.2	56.3	94.3	120.0	70.6	97.5	107.3	79.8	96.7	111.7
	2. Tobacco	63.5	95.4	122.4	50.2	97.8	132.8	82.8	93.9	118.6	60.6	104.2	112.0
	3. Textiles	52.8	97.7	116.4	42.2	96.4	117.4	128.5	102.8	112.3	32.9	93.6	104.5
	4. Apparel	68.0	95.3	122.4	68.4	94.4	128.9	71.0	104.8	97.1	96.3	90.0	132.7
	5. Lumber	43.6	97.6	103.5	47.2	95.8	110.3	36.5	104.2	93.8	129.3	91.9	117.5
	6. Furniture	71.5	103.5	113.8	72.5	102.6	113.9	66.0	110.4	108.8	109.7	93.0	104.6
	7. Paper	72.2	103.4	139.9	67.5	101.8	143.7	82.9	106.8	131.5	81.5	95.3	109.2
	8. Printing & Publishing	66.1	100.6	104.7	66.7	99.4	110.0	64.1	106.8	91.0	104.0	93.1	120.8
	9. Chemicals	57.0	101.8	135.1	46.7	101.2	141.2	77.1	102.4	126.2	60.5	98.9	111.9
	10. Petroleum	62.4	102.3	112.8	42.3	99.7	123.7	80.1	104.1	110.3	52.8	95.8	112.2
	11. Rubber	68.4	99.4	114.1	64.8	98.3	115.1	83.9	102.5	108.8	77.2	95.9	105.8
	12. Leather	88.6	103.7	119.5	85.5	103.0	121.5	112.6	111.0	98.3	75.9	92.8	123.6
	13. Stone, Clay & Glass	76.5	105.5	110.4	66.6	102.5	109.9	120.0	112.1	111.2	55.5	91.4	98.9
	14. Primary Metals	89.0	100.8	103.6	76.3	97.9	104.6	146.0	108.3	97.3	52.3	90.5	107.5
	15. Fabricated Metals	76.3	98.3	105.5	68.7	98.2	109.0	125.9	99.1	94.1	54.6	99.1	115.8
	16. Machinery exc. Electrical	80.2	100.4	109.4	74.6	99.6	115.2	107.8	103.3	94.2	69.2	96.4	122.3
	17. Electrical Machinery	47.8	97.3	123.7	46.3	96.2	131.1	54.3	101.8	104.6	85.2	94.5	125.4
	18. Transportation Equipment	59.0	103.0	114.7	55.4	100.6	120.6	72.4	111.0	96.7	76.5	90.6	124.7
	19. Instruments	56.1	99.4	115.7	52.0	98.5	120.3	80.5	101.8	100.8	64.6	96.8	119.4
	20. Misc. Manufactures	69.3	98.0	124.0	58.6	93.8	123.7	180.4	116.6	123.2	32.5	80.4	100.5

Note: These indexes reflect revised B.L.S. labor hours data and other minor revisions made since the original publication.

Table VI
Quarterly Indexes of Productivity, 1979 and 1980 I, II, and III: Total Factor, Labor, Capital and Capital/Labor Ratio
(1967=100)

1. Private Domestic Business Economy

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	I	118.9	122.4	112.5	108.8
	II	117.8	121.6	110.9	109.6
	III	117.5	121.2	110.7	109.5
	IV	117.7	121.3	111.3	109.0
1980	I	117.4	121.1	110.7	109.3
	II	115.5	120.4	106.8	112.8
	III	115.8	121.0	106.5	113.6
Percent Change: (Annual Rate)					
1980	II	- 6.3	- 2.2	-13.6	13.2
	III	0.9	1.9	- 1.0	2.9

2. Nonfinancial Corporate Business

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	I	115.4	118.3	108.8	108.7
	II	114.2	117.5	106.8	110.0
	III	114.1	117.4	106.6	110.1
	IV	114.2	117.3	107.2	109.4
1980	I	113.8	117.0	106.5	109.9
	II	112.2	116.5	102.5	113.6
Percent Change: (Annual Rate)					
1980	I	- 1.3	- 0.8	- 2.5	1.7
	II	- 5.5	- 1.9	-14.2	14.3

3. Farming

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	I	116.7	143.8	102.6	140.1
	II	125.8	162.1	107.5	150.8
	III	124.7	161.4	106.2	152.0
	IV	123.7	152.8	108.7	140.6
1980	I	125.7	159.8	108.3	147.5
	II	127.4	169.2	106.8	158.4
	III	118.5	155.9	99.8	156.1
Percent Change: (Annual Rate)					
1980	II	5.5	25.6	- 5.4	32.9
	III	-25.3	-27.9	-23.6	- 5.7

Table VI (Cont'd)
Quarterly Indexes of Productivity, 1979 and 1980 I, II, and III: Total Factor, Labor, Capital and Capital/Labor Ratio
(1967=100)

4. Manufacturing Industry

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979 I	120.9	128.8	104.1	123.7
II	120.6	129.2	102.3	126.3
III	120.8	130.0	101.3	128.4
IV	120.0	129.6	100.1	129.4
1980 I	118.6	128.2	98.8	129.7
II	115.1	126.6	92.1	137.5
III	113.4	125.8	89.1	141.2
Percent Change: (Annual Rate)				
1980 II	-11.3	- 4.7	-24.5	26.2
III	- 6.0	- 2.7	-12.5	11.2

5. Nonfarm Nonmanufacturing Industry

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979 I	114.6	115.4	113.5	101.6
II	112.7	113.3	111.8	101.4
III	112.2	112.5	111.9	100.5
IV	113.0	113.1	113.2	100.0
1980 I	112.9	113.0	112.9	100.1
II	111.4	112.2	110.2	101.8
III	112.8	113.6	111.5	101.9
Percent Change: (Annual Rate)				
1980 II	- 5.2	- 2.9	- 9.2	7.0
III	5.1	5.2	5.0	0.2

Note: Percent changes are annual average compound rates of calculated from the previous quarter. Third quarter is preliminary. Manufacturing output has been revised by B.L.S. beginning with 1977.

R2800-1 A

MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 1 No. 3
April 1981

For the U.S. Private Domestic Economy and Major Segments and Industries

- 1948-1980 Data for Major Segments of the Economy
- 1948-1979 Data for U.S. Industries

This issue provides complete index tables for 1948-1980, reflecting revisions to the 1977 Census Benchmark.

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Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Multiple-Input Productivity					
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.3	3.2	2.0	0.2	n.a.
Service Producing Sector	1.5	1.9	1.6	0.5	n.a.
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing Industry	2.0	2.6	1.9	0.7	-1.9
Nonfarm Nonmanufacturing Industry	1.4	1.9	1.3	0.1	-1.2
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	-0.1
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	2.9	4.0	2.4	0.7	n.a.
Service Producing Sector	2.1	2.4	2.4	0.8	n.a.
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing Industry	2.5	3.0	2.4	1.4	0.0
Nonfarm Nonmanufacturing Industry	1.9	2.4	2.0	0.3	-0.6
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.3
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.5%
Goods Producing Sector	0.5	1.1	0.5	-1.2	n.a.
Service Producing Sector	0.3	0.5	0.1	0.1	n.a.
Farming	-0.1	-0.3	0.0	0.6	-0.6
Manufacturing Industry	0.2	0.9	-0.1	-1.6	-6.8
Nonfarm Nonmanufacturing Industry	0.1	0.5	-0.2	-0.3	-2.2
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.2

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80

1. Output
(Real product, in 1972 dollars)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	3.5%	3.6%	3.9%	2.7%	-0.9%
Goods Producing Sector	3.1	3.6	3.0	1.6	n.a.
Service Producing Sector	3.8	3.6	4.5	3.4	n.a.
Farming	1.1	0.9	0.9	2.0	1.2
Manufacturing Industry	3.5	4.0	3.6	2.0	-4.2
Nonfarm Nonmanufacturing Industry	3.6	3.6	4.1	3.0	0.6
Nonfinancial Corporate Business	4.4	4.6	5.0	3.0	-0.8

2. Labor Input
(Hours worked)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.9%	0.4%	1.4%	1.9%	-0.5%
Goods Producing Sector	0.1	-0.4	0.6	0.9	n.a.
Service Producing	1.7	1.2	2.1	2.6	n.a.
Farming	-3.6	-4.2	-3.9	-1.6	-2.3
Manufacturing Industry	1.0	1.0	1.2	0.6	-4.1
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.2
Nonfinancial Corporate Business	1.9	1.5	2.8	2.0	-1.1

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.8%	3.2%	2.7%
Goods Producing Sector	2.5	2.4	2.5	2.9	n.a.
Service Producing Sector	3.5	3.1	4.5	3.3	n.a.
Farming	1.2	1.2	0.9	1.4	1.8
Manufacturing Industry	3.3	3.0	3.7	3.6	2.8
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	2.8
Nonfinancial Corporate Business	3.9	3.7	5.1	2.7	0.4
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.3%	3.3%
Goods Producing Sector	2.4	2.8	1.9	2.0	n.a.
Service Producing Sector	1.7	1.8	2.3	0.7	n.a.
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing Industry	2.4	2.0	2.5	3.1	7.2
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.5	1.6
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.5

Table III a.

Multiple-Input Productivity By Major Industries of the Economy (Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979 80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4
Goods Producing Sector	2.3	3.2	2.0	0.2	
Service Producing Sector	1.5	1.9	1.6	0.5	
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing	2.0	2.6	1.9	0.7	-1.9
Food	2.7	2.9	4.1	0.1	
Tobacco	2.1	2.6	2.1	0.6	
Textiles	3.6	3.9	3.0	3.6	
Apparel	2.6	2.0	3.0	3.8	
Lumber	2.8	4.5	1.2	0.2	
Furniture	2.1	2.2	0.8	3.6	
Paper	2.2	2.2	4.0	-0.2	
Printing & Publishing	1.3	2.4	1.0	-1.2	
Chemicals	3.4	3.8	4.2	1.1	
Petroleum	1.9	3.4	2.0	-2.4	
Rubber	1.7	2.3	2.0	-0.3	
Leather	1.3	1.1	1.8	1.2	
Stone, Clay & Glass	1.3	2.0	0.9	0.0	
Primary Metals	0.3	0.9	0.9	-1.9	
Fabricated Metals	1.3	1.7	1.3	0.5	
Machinery, exc. Elec.	1.3	1.5	1.4	0.8	
Electrical Machinery	3.7	4.3	2.8	3.3	
Transportation Equipment	2.5	3.4	2.3	0.4	
Instruments	2.7	3.4	2.4	1.0	
Miscellaneous Manufac.	2.5	2.3	3.6	1.4	
Nonfarm Nonmanufacturing	1.4	1.9	1.3	0.1	-1.2
Mining	0.9	2.3	1.7	-4.0	
Construction	0.4	2.4	-1.0	-3.5	
Transportation	1.9	2.0	2.4	1.0	
Railroad	2.8	4.2	1.2	1.1	
Nonrail	1.1	0.5	2.7	0.8	
Communications	4.6	5.4	3.2	4.3	
Public Utilities	3.2	5.6	1.5	-0.9	
Trade	2.1	2.4	2.6	0.6	
Finance & Insurance	0.6	1.1	0.5	-0.7	
Real Estate	1.3	1.9	0.0	1.2	
Services	0.5	0.4	0.9	0.3	
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	-0.1

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	2.9	4.0	2.4	0.7	
Service Producing Sector	2.1	2.4	2.4	0.8	
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing	2.5	3.0	2.4	1.4	0.0
Food	3.1	3.2	4.6	0.7	
Tobacco	3.9	4.0	4.0	3.5	
Textiles	4.4	5.0	3.3	4.3	
Apparel	2.8	2.0	3.3	4.1	
Lumber	3.1	4.3	1.8	1.6	
Furniture	2.2	2.1	1.1	4.2	
Paper	2.7	2.5	4.5	1.0	
Printing & Publishing	1.5	2.4	1.5	-1.0	
Chemicals	4.3	4.8	4.8	2.5	
Petroleum	3.6	5.5	3.3	-1.5	
Rubber	2.0	2.5	2.2	0.2	
Leather	1.5	1.2	2.2	1.7	
Stone, Clay & Glass	1.9	2.6	1.2	0.8	
Primary Metals	0.9	1.5	1.5	-1.3	
Fabricated Metals	1.8	2.1	1.5	1.1	
Machinery, exc. Elec.	1.7	1.7	2.0	1.4	
Electrical Machinery	4.1	4.5	3.4	3.8	
Transportation Equipment	3.0	3.6	3.1	1.2	
Instruments	3.1	3.8	3.1	1.2	
Miscellaneous Manufac.	2.9	2.8	4.0	1.5	
Nonfarm Nonmanufacturing	1.9	2.4	2.0	0.3	-0.6
Mining	1.9	4.3	2.4	-5.2	
Construction	0.5	2.6	-0.9	-3.5	
Transportation	2.2	2.3	2.6	1.1	
Railroad	3.4	4.8	1.7	1.4	
Nonrail	1.4	0.8	3.2	1.1	
Communications	5.9	6.5	4.8	5.8	
Public Utilities	4.9	6.9	3.8	0.6	
Trade	2.5	2.8	3.2	0.8	
Finance & Insurance	1.1	1.3	1.2	0.1	
Real Estate	0.4	1.2	0.1	-1.3	
Services	0.9	1.0	1.4	0.2	
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.3

Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948- 79	1948- 65	1965- 73	1973- 79	1979 80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.5
Goods Producing Sector	0.5	1.1	0.5	-1.2	
Service Producing Sector	0.3	0.5	0.1	0.1	
Farming	-0.1	-0.3	0.0	0.6	-0.6
Manufacturing	0.2	0.9	-0.1	-1.6	-6.8
Food	1.4	2.1	2.5	-2.0	
Tobacco	-0.2	0.0	0.3	-1.3	
Textiles	0.1	-0.9	1.5	1.2	
Apparel	1.1	2.2	-0.9	0.6	
Lumber	2.0	5.4	-1.4	-3.0	
Furniture	1.5	3.3	-1.2	0.3	
Paper	0.9	1.5	2.5	-3.1	
Printing & Publishing	0.5	2.4	-1.7	-2.1	
Chemicals	1.7	2.0	3.1	-1.2	
Petroleum	0.5	1.6	0.9	-2.9	
Rubber	0.8	1.7	1.0	-2.0	
Leather	-1.3	-0.2	-3.0	-1.8	
Stone, Clay & Glass	-0.7	-0.3	-0.1	-2.4	
Primary Metals	-2.0	-1.8	-1.0	-4.0	
Fabricated Metals	-1.2	-1.2	-0.3	-2.4	
Machinery, exc. Elec.	-0.8	-0.4	-1.1	-1.4	
Electrical Machinery	1.8	3.3	-0.7	0.9	
Transportation Equipment	0.7	2.5	-1.0	-1.9	
Instruments	0.3	0.2	0.4	0.7	
Miscellaneous Manufac.	0.6	-0.2	2.0	1.1	
Nonfarm Nonmanufacturing	0.1	0.5	-0.2	-0.3	-2.2
Mining	-1.3	-2.0	0.7	-2.3	
Construction	-2.2	-1.9	-2.9	-2.3	
Transportation	0.3	-0.1	1.3	0.2	
Railroad	-0.5	-0.2	-1.1	-0.2	
Nonrail	-1.0	-1.4	0.0	-0.8	
Communications	0.8	0.2	0.8	2.5	
Public Utilities	1.0	2.8	-0.5	-2.0	
Trade	-1.2	-1.2	-1.5	-0.9	
Finance & Insurance	-2.9	-1.4	-4.6	-4.9	
Real Estate	1.4	1.9	0.0	1.5	
Services	-0.5	-1.1	-0.1	0.7	
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.2

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.3%	3.3%
Goods Producing Sector	2.4	2.8	1.9	2.0	
Service Producing Sector	1.7	1.8	2.3	0.7	
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.0	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.7	
Tobacco	4.1	4.0	3.7	4.9	
Textiles	4.3	5.9	1.8	3.1	
Apparel	1.6	-0.2	4.2	3.6	
Lumber	1.1	-1.1	3.2	4.8	
Furniture	0.7	-1.1	2.4	3.9	
Paper	1.9	1.0	2.0	4.3	
Printing & Publishing	1.0	0.0	3.3	1.1	
Chemicals	2.6	2.7	1.7	3.7	
Petroleum	3.0	3.9	2.4	1.4	
Rubber	1.2	0.8	1.2	2.3	
Leather	2.8	1.4	5.3	3.6	
Stone, Clay & Glass	2.5	2.9	1.3	3.2	
Primary Metals	3.0	3.3	2.5	2.8	
Fabricated Metals	3.0	3.4	1.8	3.6	
Machinery, exc. Elec.	2.5	2.1	3.1	2.9	
Electrical Machinery	2.2	1.1	4.2	2.9	
Transportation Equipment	2.3	1.1	4.2	3.2	
Instruments	2.8	3.7	2.7	0.5	
Miscellaneous Manufac.	2.2	3.0	2.0	0.4	
Nonfarm Nonmanufacturing	1.7	2.0	2.2	0.5	1.6
Mining	3.3	6.4	1.7	-3.0	
Construction	2.8	4.6	2.0	-1.2	
Transportation	1.8	2.4	1.3	0.9	
Railroad	3.8	5.1	2.9	1.7	
Nonrail	2.4	2.2	3.2	1.9	
Communications	5.1	6.3	3.9	3.2	
Public Utilities	3.8	4.0	4.3	2.6	
Trade	3.7	4.0	4.7	1.8	
Finance & Insurance	4.1	2.8	6.1	5.3	
Real Estate	-0.9	-0.7	0.1	-2.7	
Services	1.4	2.1	1.5	-0.5	
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.5

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.9	41.4	68.3	54.5	46.0	89.8	51.2
1949	36.5	78.3	42.1	66.7	54.7	46.7	86.7	53.8
1950	39.9	79.2	43.5	67.8	58.8	50.3	91.6	55.0
1951	42.2	81.5	45.0	69.8	60.4	51.7	93.7	55.2
1952	43.6	81.6	46.1	70.2	62.1	53.4	94.5	56.5
1953	45.4	82.4	47.2	71.1	63.9	55.1	96.4	57.2
1954	44.6	79.7	48.2	69.6	64.1	56.0	92.7	60.4
1955	48.2	82.7	49.9	72.2	66.7	58.2	96.6	60.3
1956	49.4	84.0	51.3	73.5	67.2	58.8	96.2	61.1
1957	49.9	82.7	52.8	73.1	68.3	60.3	94.5	63.8
1958	49.1	79.0	53.8	70.9	69.3	62.2	91.3	68.1
1959	51.8	82.1	55.3	73.5	70.6	63.1	93.7	67.4
1960	53.6	82.3	56.7	74.0	72.3	65.1	94.4	69.0
1961	54.5	81.0	58.1	73.6	74.0	67.2	93.7	71.7
1962	57.5	82.3	59.9	75.1	76.5	69.8	96.0	72.7
1963	60.0	82.8	61.7	76.0	78.9	72.4	97.3	74.4
1964	63.6	84.2	63.8	77.6	81.9	75.5	99.6	75.8
1965	67.9	86.8	66.3	80.2	84.6	78.2	102.4	76.4
1966	71.6	88.9	69.3	82.6	86.8	80.6	103.4	77.9
1967	73.2	88.8	71.9	83.4	87.8	82.4	101.9	80.9
1968	76.9	90.3	74.6	85.3	90.2	85.2	103.1	82.6
1969	79.2	92.7	77.6	87.9	90.1	85.4	102.0	83.7
1970	78.5	91.2	80.1	87.6	89.6	86.1	98.0	87.9
1971	80.9	90.7	82.7	88.1	91.8	89.2	97.8	91.2
1972	86.2	93.4	85.5	90.8	94.9	92.4	100.8	91.6
1973	92.0	97.0	89.1	94.4	97.4	94.8	103.2	91.9
1974	90.2	97.4	92.2	95.7	94.3	92.7	97.8	94.7
1975	88.5	93.4	94.2	93.6	94.5	94.8	94.0	100.9
1976	94.1	96.1	96.8	96.3	97.7	97.9	97.2	100.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.9	103.7	104.5	100.2	99.8	101.0	98.8
1979	107.7	108.4	107.3	108.0	99.7	99.4	100.3	99.1
1980	106.8	107.8	110.3	108.6	98.3	99.0	96.8	102.3

PRELIMINARY: April 13, 1981

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.3%	3.3%
Goods Producing Sector	2.4	2.8	1.9	2.0	
Service Producing Sector	1.7	1.8	2.3	0.7	
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.0	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.7	
Tobacco	4.1	4.0	3.7	4.9	
Textiles	4.3	5.9	1.8	3.1	
Apparel	1.6	-0.2	4.2	3.6	
Lumber	1.1	-1.1	3.2	4.8	
Furniture	0.7	-1.1	2.4	3.9	
Paper	1.9	1.0	2.0	4.3	
Printing & Publishing	1.0	0.0	3.3	1.1	
Chemicals	2.6	2.7	1.7	3.7	
Petroleum	3.0	3.9	2.4	1.4	
Rubber	1.2	0.8	1.2	2.3	
Leather	2.8	1.4	5.3	3.6	
Stone, Clay & Glass	2.5	2.9	1.3	3.2	
Primary Metals	3.0	3.3	2.5	2.8	
Fabricated Metals	3.0	3.4	1.8	3.6	
Machinery, exc. Elec.	2.5	2.1	3.1	2.9	
Electrical Machinery	2.2	1.1	4.2	2.9	
Transportation Equipment	2.3	1.1	4.2	3.2	
Instruments	2.8	3.7	2.7	0.5	
Miscellaneous Manufac.	2.2	3.0	2.0	0.4	
Nonfarm Nonmanufacturing	1.7	2.0	2.2	0.5	1.6
Mining	3.3	6.4	1.7	-3.0	
Construction	2.8	4.6	2.0	-1.2	
Transportation	1.8	2.4	1.3	0.9	
Railroad	3.8	5.1	2.9	1.7	
Nonrail	2.4	2.2	3.2	1.9	
Communications	5.1	6.3	3.9	3.2	
Public Utilities	3.8	4.0	4.3	2.6	
Trade	3.7	4.0	4.7	1.8	
Finance & Insurance	4.1	2.8	6.1	5.3	
Real Estate	-0.9	-0.7	0.1	-2.7	
Services	1.4	2.1	1.5	-0.5	
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.5

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.4	104.5	49.4	86.2	49.1	40.5	85.7	47.3
1949	40.4	98.6	50.0	82.8	48.8	41.0	80.9	50.7
1950	45.4	100.6	51.7	84.7	53.6	45.1	87.7	51.4
1951	49.5	104.2	54.2	88.0	56.3	47.5	91.4	52.0
1952	51.0	103.7	55.8	88.3	57.7	49.2	91.3	53.8
1953	54.0	104.3	57.0	89.2	60.6	51.8	94.7	54.7
1954	51.6	97.6	58.0	85.3	60.5	52.9	89.0	59.4
1955	56.4	102.0	60.2	89.0	63.3	55.3	93.7	59.0
1956	57.3	102.5	62.0	90.1	63.7	55.9	92.4	60.5
1957	57.4	99.2	63.6	88.6	64.8	57.9	90.3	64.1
1958	54.3	91.7	64.3	84.1	64.6	59.3	84.4	70.2
1959	58.9	96.1	65.8	87.5	67.3	61.3	89.5	68.5
1960	59.7	94.8	66.9	86.9	68.7	63.0	89.3	70.6
1961	59.7	91.9	67.8	85.2	70.1	64.9	88.0	73.8
1962	63.6	93.8	69.2	86.9	73.2	67.8	92.0	73.7
1963	67.7	93.9	70.4	87.4	77.5	72.1	96.1	75.0
1964	71.6	94.6	72.2	88.4	81.0	75.7	99.2	76.3
1965	77.0	98.2	74.3	91.6	84.1	78.4	103.6	75.6
1966	81.2	101.3	77.1	94.6	85.9	80.2	105.3	76.2
1967	81.4	100.0	79.8	94.4	86.2	81.4	102.0	79.8
1968	85.5	100.8	81.8	95.6	89.4	84.8	104.5	81.2
1969	87.4	102.4	84.0	97.4	89.7	85.3	104.1	81.9
1970	83.7	97.2	85.4	94.0	89.0	86.1	98.0	87.9
1971	85.8	94.7	86.5	92.5	92.8	90.7	99.2	91.3
1972	91.9	98.4	88.0	95.6	96.1	93.4	104.4	89.5
1973	97.6	102.8	90.5	99.4	98.2	95.0	107.9	88.1
1974	91.2	101.5	93.5	99.3	91.8	89.9	97.6	92.1
1975	87.0	92.7	95.0	93.4	93.2	93.8	91.5	102.5
1976	93.9	95.9	97.2	96.3	97.5	97.8	96.5	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.4	103.4	104.8	99.8	99.3	101.2	98.2
1979	107.5	108.4	107.2	108.0	99.5	99.2	100.3	98.9

PRELIMINARY: April 13, 1981

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.7	63.9	37.3	54.2	62.3	52.8	90.5	58.4
1949	33.9	63.5	38.1	54.2	62.5	53.4	89.0	60.0
1950	36.1	63.7	39.3	54.7	66.1	56.8	92.0	61.7
1951	37.2	65.0	40.2	55.9	66.6	57.2	92.5	61.9
1952	38.6	65.5	41.1	56.5	68.3	58.8	93.9	62.6
1953	39.7	66.6	42.0	57.5	69.0	59.6	94.4	63.1
1954	39.9	66.7	43.1	57.9	68.9	59.8	92.7	64.6
1955	42.6	68.7	44.5	59.7	71.4	62.0	95.8	64.8
1956	44.0	70.5	45.8	61.3	71.8	62.5	96.2	65.0
1957	44.8	70.8	47.2	62.0	72.4	63.3	95.0	66.7
1958	45.6	69.8	48.4	61.7	74.0	65.3	94.3	69.3
1959	47.1	72.0	49.9	63.6	74.0	65.4	94.4	69.3
1960	49.4	73.2	51.5	64.9	76.0	67.5	95.9	70.4
1961	51.0	73.1	53.1	65.5	77.8	69.7	96.0	72.6
1962	53.3	74.0	55.1	66.8	79.9	72.1	96.9	74.4
1963	54.8	74.8	57.1	68.1	80.4	73.2	95.9	76.4
1964	58.2	76.6	59.5	70.1	83.0	75.9	97.8	77.6
1965	61.8	78.6	62.2	72.4	85.3	78.6	99.3	79.2
1966	65.2	79.8	65.2	74.3	87.7	81.6	100.0	81.6
1967	67.7	80.7	67.8	75.8	89.3	83.9	99.9	83.9
1968	71.2	82.7	70.9	78.3	90.9	86.0	100.4	85.7
1969	73.6	85.7	74.4	81.4	90.5	85.9	99.0	86.8
1970	75.0	86.8	77.4	83.2	90.1	86.4	96.9	89.2
1971	77.5	87.7	80.7	85.1	91.1	88.3	96.1	92.0
1972	82.4	89.7	84.2	87.6	94.1	91.9	97.8	93.9
1973	88.1	92.8	88.4	91.1	96.7	95.0	99.7	95.3
1974	89.6	94.4	91.6	93.3	96.0	94.9	97.8	97.0
1975	89.5	93.8	93.8	93.8	95.4	95.4	95.5	99.9
1976	94.3	96.2	96.6	96.4	97.8	98.0	97.6	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.8	104.6	103.8	104.3	100.4	100.2	100.9	99.2
1979	107.8	108.3	107.4	108.0	99.8	99.5	100.4	99.2

PRELIMINARY: April 13, 1981

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios

(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.8	60.2	32.6	52.3	55.0	47.8	88.2	54.2
1949	27.5	56.6	33.3	50.0	55.1	48.6	82.7	58.8
1950	30.9	59.3	34.6	52.3	59.2	52.2	89.5	58.3
1951	33.8	63.0	36.3	55.4	61.0	53.6	93.2	57.5
1952	34.4	63.9	37.5	56.4	61.0	53.9	91.9	58.7
1953	36.5	65.7	38.7	58.1	62.9	55.6	94.4	58.9
1954	35.4	62.1	39.6	55.8	63.5	57.1	89.5	63.8
1955	39.5	65.1	41.2	58.4	67.6	60.6	95.8	63.3
1956	40.5	66.6	42.9	59.9	67.6	60.9	94.5	64.4
1957	41.1	65.8	44.2	59.8	68.7	62.4	92.8	67.2
1958	39.2	62.9	44.9	57.9	67.7	62.4	87.4	71.4
1959	43.5	66.8	46.1	61.1	71.2	65.1	94.3	69.0
1960	44.9	67.6	47.4	62.0	72.3	66.3	94.6	70.1
1961	46.0	67.0	48.6	61.9	74.3	68.6	94.6	72.5
1962	50.0	69.6	51.3	64.6	77.5	71.8	97.6	73.6
1963	53.4	71.3	53.7	66.4	80.3	74.9	99.3	75.4
1964	57.0	73.6	56.7	68.9	82.7	77.5	100.6	77.1
1965	62.0	77.5	60.6	72.9	85.0	79.9	102.3	78.1
1966	66.4	81.8	66.4	77.6	85.6	81.2	100.1	81.1
1967	68.0	82.9	70.7	79.6	85.4	82.0	96.1	85.3
1968	72.5	85.5	74.5	82.6	87.7	84.8	97.2	87.2
1969	75.6	88.9	78.4	86.1	87.8	85.0	96.4	88.2
1970	75.0	87.9	81.1	86.1	87.1	85.4	92.5	92.3
1971	78.5	87.7	83.4	86.6	90.6	89.4	94.1	95.0
1972	84.9	92.2	86.8	90.7	93.5	92.1	97.8	94.2
1973	91.6	96.9	90.3	95.2	96.3	94.5	101.4	93.2
1974	88.6	97.1	92.5	95.9	92.4	91.3	95.8	95.3
1975	86.9	92.0	92.7	92.2	94.2	94.4	93.7	100.8
1976	93.3	95.8	95.8	95.8	97.4	97.4	97.4	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.9	100.8	100.4	101.8	98.6
1979	109.3	109.0	105.9	108.2	101.1	100.3	103.2	97.2
1980	108.4	107.8	106.3	107.4	101.0	100.6	102.0	98.6

PRELIMINARY: April 13, 1981

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.7	312.2	72.9	206.7	36.6	24.3	103.8	23.4
1949	74.4	309.5	73.4	205.4	36.2	24.0	101.4	23.7
1950	78.5	286.4	75.4	193.3	40.6	27.4	104.1	26.3
1951	74.6	271.3	76.7	185.4	40.2	27.5	97.3	28.3
1952	76.5	258.1	78.0	178.6	42.8	29.6	98.0	30.2
1953	80.5	238.8	78.5	168.0	47.9	33.7	102.5	32.9
1954	82.4	232.0	79.3	164.5	50.1	35.5	103.9	34.2
1955	84.9	235.9	81.6	167.6	50.6	36.0	104.1	34.6
1956	83.7	224.6	82.1	161.5	51.8	37.3	102.0	36.5
1957	81.5	206.6	83.2	151.9	53.6	39.4	97.9	40.3
1958	85.1	191.6	83.9	143.8	59.2	44.4	101.4	43.8
1959	80.5	191.8	85.5	144.6	55.7	42.0	94.1	44.6
1960	85.0	185.0	86.4	141.0	60.3	46.0	98.4	46.7
1961	84.6	175.1	86.5	135.3	62.5	48.3	97.8	49.4
1962	84.2	169.7	87.1	132.5	63.6	49.6	96.7	51.3
1963	86.9	162.6	87.8	128.6	67.6	53.4	99.0	54.0
1964	84.8	153.8	88.7	123.8	68.5	55.2	95.7	57.7
1965	87.9	149.8	89.3	121.8	72.2	58.7	98.4	59.7
1966	83.0	135.7	89.8	113.8	72.9	61.2	92.4	66.2
1967	87.2	130.8	90.6	111.3	78.4	66.7	96.3	69.2
1968	85.5	128.0	91.2	109.9	77.8	66.8	93.7	71.3
1969	87.4	121.8	91.7	106.5	82.0	71.7	95.2	75.3
1970	92.1	113.5	92.6	102.8	89.5	81.2	99.5	81.6
1971	97.4	110.2	93.7	101.8	95.7	88.4	104.0	85.0
1972	95.2	111.4	94.1	102.6	92.8	85.5	101.2	84.5
1973	94.6	109.0	96.0	102.4	92.4	86.8	98.6	88.1
1974	95.3	109.1	97.0	103.0	92.6	87.3	98.2	88.9
1975	101.3	105.9	98.5	102.1	99.2	95.7	102.9	93.0
1976	96.7	101.1	99.2	100.1	96.6	95.7	97.6	98.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	101.7	101.8	101.8	98.0	98.1	97.9	100.2
1979	106.4	99.1	104.1	101.7	104.7	107.4	102.2	105.1
1980	107.7	96.8	106.0	101.5	106.1	111.3	101.6	109.5

PRELIMINARY: April 13, 1981

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.3	79.4	39.4	68.6	54.4	47.0	94.7	49.6
1949	35.3	72.4	40.0	63.7	55.4	48.8	88.3	55.2
1950	40.3	78.2	41.5	68.3	59.0	51.5	97.1	53.1
1951	44.8	84.2	44.8	73.6	60.9	53.2	100.1	53.2
1952	46.3	85.4	46.6	75.0	61.7	54.2	99.4	54.5
1953	49.5	89.8	48.2	78.6	62.9	55.1	102.6	53.7
1954	45.9	82.1	49.0	73.3	62.6	55.9	93.7	59.7
1955	50.9	86.6	51.0	77.2	65.9	58.8	99.8	58.8
1956	51.2	87.9	53.4	78.8	65.0	58.3	95.9	60.8
1957	51.5	86.5	54.9	78.3	65.8	59.5	93.8	63.5
1958	47.1	79.4	55.3	73.3	64.2	59.2	85.1	69.6
1959	52.4	84.7	56.3	77.3	67.7	61.9	93.1	66.4
1960	52.8	84.4	57.1	77.4	68.2	62.5	92.4	67.7
1961	52.6	82.3	58.1	76.1	69.1	63.9	90.5	70.6
1962	57.2	85.6	59.5	78.9	72.4	66.8	96.0	69.5
1963	61.7	86.5	60.9	79.9	77.2	71.3	101.4	70.4
1964	66.2	88.4	62.7	81.8	80.9	74.9	105.5	71.0
1965	72.2	93.6	65.5	86.4	83.5	77.1	110.1	70.0
1966	78.0	99.7	69.9	92.1	84.7	78.2	111.5	70.1
1967	78.0	99.6	73.8	93.0	83.9	78.3	105.7	74.1
1968	82.4	101.4	76.6	95.1	86.6	81.2	107.6	75.5
1969	84.8	103.0	79.6	97.1	87.3	82.3	106.5	77.2
1970	80.0	97.3	81.5	93.3	85.7	82.2	98.2	83.7
1971	81.1	93.7	82.5	90.9	89.2	86.5	98.3	88.0
1972	88.7	97.8	84.6	94.5	93.9	90.7	104.7	86.6
1973	96.1	103.2	87.7	99.3	96.8	93.1	109.5	85.0
1974	89.6	101.2	92.1	98.9	90.6	88.5	97.3	91.0
1975	85.1	91.4	93.6	92.0	92.5	93.0	90.9	102.4
1976	93.2	95.9	96.6	96.1	96.9	97.1	96.5	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.8	104.4	104.1	104.3	100.5	100.4	100.7	99.7
1979	108.1	106.6	108.8	107.2	100.8	101.3	99.4	102.0
1980	103.5	102.2	111.8	104.6	99.0	101.3	92.6	109.4

PRELIMINARY: April 13, 1981

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.5	64.9	37.1	55.5	63.9	54.7	95.6	57.2
1949	35.4	64.2	37.9	55.3	64.0	55.1	93.4	59.0
1950	38.0	64.7	39.2	56.0	67.8	58.7	96.9	60.6
1951	39.5	66.6	40.2	57.6	68.7	59.4	98.4	60.4
1952	40.9	67.1	41.1	58.2	70.2	60.9	99.6	61.2
1953	42.1	67.8	42.1	59.0	71.3	62.0	100.0	62.0
1954	42.4	67.6	43.2	59.2	71.6	62.7	98.2	63.8
1955	45.3	69.9	44.7	61.2	74.0	64.8	101.3	64.0
1956	47.1	72.1	46.1	63.1	74.5	65.3	102.1	64.0
1957	47.8	72.1	47.6	63.6	75.1	66.3	100.4	66.0
1958	48.5	70.7	48.8	63.0	76.9	68.6	99.3	69.1
1959	50.4	73.0	50.5	65.1	77.3	68.9	99.8	69.1
1960	52.5	73.9	52.1	66.3	79.3	71.1	100.8	70.5
1961	54.0	73.6	53.8	66.7	81.0	73.4	100.5	73.0
1962	56.5	74.5	55.8	68.0	83.1	75.7	101.2	74.9
1963	58.0	75.4	57.9	69.3	83.8	76.9	100.3	76.7
1964	61.4	77.3	60.3	71.3	86.2	79.5	101.3	78.0
1965	65.1	79.2	63.0	73.6	88.5	82.1	103.3	79.5
1966	68.3	80.6	66.0	75.5	90.5	84.7	103.5	81.9
1967	70.5	81.0	68.5	76.6	91.9	87.0	102.8	84.6
1968	74.1	82.6	71.6	78.8	94.1	89.7	103.5	86.6
1969	76.2	86.0	75.0	82.1	92.8	88.6	101.7	87.2
1970	77.2	86.8	77.9	83.7	92.3	89.0	99.1	89.8
1971	80.0	87.9	81.0	85.5	93.6	91.1	98.8	92.2
1972	84.7	90.1	84.4	88.1	96.2	94.1	100.3	93.8
1973	90.0	93.3	88.4	91.6	98.2	96.4	101.8	94.7
1974	90.3	94.8	91.5	93.7	96.4	95.3	98.7	96.5
1975	89.5	93.3	93.7	93.5	95.8	95.9	95.5	100.4
1976	94.4	95.8	96.6	96.1	98.3	98.5	97.8	100.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.4	103.8	104.9	100.0	99.5	101.0	98.5
1979	107.6	109.8	107.5	109.0	98.7	98.0	100.1	97.9
1980	108.2	111.1	110.5	110.9	97.5	97.4	97.9	99.5

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.1	112.5	38.6	80.2	71.2	50.8	147.9	34.3
1949	50.0	97.2	39.4	71.9	69.6	51.5	127.0	40.5
1950	56.0	98.3	41.4	73.4	76.4	57.0	135.3	42.1
1951	61.2	102.5	43.1	76.4	80.1	59.7	142.1	42.0
1952	60.3	99.6	45.0	75.6	79.8	60.6	134.1	45.2
1953	61.7	96.8	46.6	74.7	82.6	63.7	132.4	48.1
1954	59.6	88.5	48.8	70.9	84.1	67.4	122.1	55.2
1955	66.5	93.3	51.7	74.8	88.9	71.3	128.8	55.4
1956	70.1	97.0	54.2	78.0	89.9	72.3	129.5	55.8
1957	70.0	96.2	56.8	78.7	89.0	72.8	123.3	59.0
1958	64.3	85.0	58.9	73.2	87.8	75.6	109.2	69.2
1959	67.2	86.5	61.4	75.2	89.4	77.7	109.4	71.0
1960	68.2	84.1	63.6	74.8	91.2	81.1	107.2	75.6
1961	68.5	80.0	66.2	73.6	93.1	85.7	103.6	82.7
1962	70.5	78.2	68.4	73.6	95.8	90.1	103.1	87.5
1963	73.5	76.3	70.1	73.3	100.3	96.4	104.9	91.9
1964	76.5	77.1	73.2	75.1	101.9	99.2	104.6	94.8
1965	79.5	76.9	75.3	75.9	104.7	103.4	105.6	97.9
1966	83.6	77.2	77.7	77.1	108.4	108.4	107.6	100.7
1967	85.8	74.6	79.5	76.5	112.2	115.0	107.9	106.6
1968	89.0	73.3	81.5	76.6	116.2	121.5	109.3	111.1
1969	92.2	75.3	83.6	78.7	117.1	122.4	110.3	110.9
1970	95.7	74.8	84.7	78.9	121.3	127.9	112.9	113.2
1971	93.2	72.8	85.3	77.9	119.7	128.0	109.3	117.1
1972	96.1	74.9	85.8	79.3	121.1	128.3	112.0	114.5
1973	97.0	77.4	86.9	81.3	119.4	125.4	111.6	112.4
1974	97.3	83.2	88.5	85.4	113.9	116.9	109.9	106.4
1975	95.4	88.8	91.2	89.0	106.2	107.4	104.5	102.7
1976	96.6	94.5	95.0	94.7	102.0	102.2	101.6	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.4	104.8	104.6	99.3	99.5	99.1	100.4
1979	106.3	116.5	109.2	113.5	93.6	91.3	97.3	93.8

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.9	64.5	24.0	61.9	77.4	74.3	199.6	37.2
1949	47.9	63.9	24.1	61.3	78.1	75.0	198.9	37.7
1950	52.8	66.7	26.5	64.1	82.4	79.2	199.2	39.8
1951	58.7	73.1	29.1	70.3	83.5	80.3	201.6	39.8
1952	61.1	74.7	30.7	71.9	85.0	81.8	199.4	41.0
1953	63.0	73.0	30.2	70.3	89.6	86.2	208.3	41.4
1954	65.0	71.7	31.8	69.2	93.8	90.5	204.2	44.3
1955	68.9	75.7	34.0	73.1	94.3	91.0	202.7	44.9
1956	73.8	80.8	36.9	78.0	94.6	91.4	200.0	45.7
1957	74.0	78.6	40.6	76.2	97.0	94.1	182.1	51.7
1958	76.1	75.5	42.7	73.6	103.5	100.8	178.4	56.5
1959	82.2	80.0	46.9	78.0	105.3	102.7	175.3	58.6
1960	83.3	78.2	49.5	76.5	109.0	106.6	168.4	63.3
1961	84.3	77.2	52.6	75.7	111.4	109.2	160.4	68.1
1962	87.5	78.8	56.0	77.3	113.1	111.1	156.3	71.1
1963	90.2	80.9	60.0	79.6	113.3	111.4	150.2	74.2
1964	94.2	83.2	64.0	81.9	115.0	113.3	147.2	77.0
1965	98.3	85.7	68.2	84.6	116.2	114.7	144.2	79.5
1966	98.6	88.0	71.4	86.9	113.5	112.1	138.2	81.1
1967	96.5	84.5	75.3	83.8	115.2	114.2	128.1	89.1
1968	102.7	83.6	77.9	83.1	123.7	122.9	131.8	93.2
1969	100.8	91.0	81.2	90.3	111.7	110.7	124.2	89.1
1970	96.5	89.4	83.0	88.9	108.6	108.0	116.3	92.8
1971	104.7	92.2	86.2	91.8	114.1	113.5	121.5	93.4
1972	107.3	96.3	91.4	95.9	111.8	111.3	117.4	94.9
1973	108.7	101.6	95.0	101.1	107.5	106.9	114.4	93.5
1974	96.3	101.0	98.5	100.8	95.5	95.4	97.8	97.5
1975	87.3	89.8	97.3	90.4	96.6	97.2	89.7	108.4
1976	95.4	92.4	97.4	92.8	102.7	103.2	97.9	105.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	112.4	103.1	112.1	94.8	94.5	103.1	91.7
1979	105.2	121.7	105.6	120.9	87.0	86.4	99.7	86.7

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.7	115.7	63.7	105.3	56.7	51.6	93.7	55.1
1949	52.2	105.7	65.0	97.6	53.5	49.4	80.3	61.5
1950	54.6	104.7	66.1	97.0	56.3	52.2	82.7	63.1
1951	59.5	109.1	67.6	100.9	59.0	54.5	88.1	61.9
1952	57.6	106.6	68.8	99.1	58.1	54.0	83.7	64.5
1953	57.1	106.1	69.7	98.9	57.7	53.8	81.9	65.7
1954	53.4	99.0	70.1	93.3	57.3	54.0	76.2	70.9
1955	58.2	101.5	70.6	95.4	61.0	57.3	82.5	69.5
1956	60.3	102.4	71.3	96.2	62.7	58.9	84.6	69.7
1957	59.9	99.9	72.5	94.5	63.4	60.0	82.6	72.6
1958	55.5	91.6	72.6	87.9	63.2	60.6	76.5	79.2
1959	58.6	94.3	73.5	90.2	64.9	62.1	79.7	77.9
1960	59.3	93.3	74.4	89.6	66.2	63.6	79.7	79.8
1961	59.0	90.7	74.8	87.6	67.3	65.0	78.8	82.4
1962	61.3	91.1	75.4	88.0	69.7	67.3	81.4	82.7
1963	64.6	91.0	75.6	87.9	73.4	71.0	85.4	83.1
1964	66.6	92.3	76.8	89.3	74.6	72.1	86.7	83.2
1965	72.5	95.1	78.5	91.9	78.9	76.2	92.4	82.5
1966	78.6	97.2	80.7	94.0	83.6	80.8	97.4	83.0
1967	78.3	90.7	82.8	89.1	87.9	86.4	94.6	91.3
1968	83.9	97.4	85.5	95.0	88.3	86.1	98.1	87.8
1969	84.9	99.2	87.6	96.9	87.6	85.6	97.0	88.3
1970	83.5	97.8	89.2	96.1	86.8	85.3	93.6	91.2
1971	83.0	95.6	90.1	94.5	87.8	86.8	92.2	94.2
1972	89.2	97.7	89.8	96.1	92.8	91.3	99.3	91.9
1973	94.6	100.9	92.5	99.2	95.4	93.8	102.4	91.7
1974	96.9	99.8	94.6	98.8	98.1	97.1	102.4	94.8
1975	90.4	94.2	97.5	94.9	95.3	96.0	92.7	103.5
1976	94.9	96.3	99.8	97.0	97.8	98.5	95.0	103.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	105.1	102.5	104.5	102.3	101.8	104.4	97.5
1979	109.4	108.9	105.3	108.2	101.1	100.4	103.8	96.7

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	113.4	295.8	94.3	251.5	45.1	38.3	120.3	31.9
1949	94.2	252.2	95.8	217.9	43.2	37.3	98.3	38.0
1950	102.4	239.6	96.7	208.3	49.2	42.7	105.9	40.3
1951	115.2	250.8	98.0	217.4	53.0	45.9	117.5	39.1
1952	110.3	239.9	99.2	209.2	52.7	46.0	111.2	41.4
1953	107.3	236.0	99.9	206.3	52.0	45.5	107.4	42.3
1954	96.9	209.3	99.9	185.6	52.2	46.3	97.0	47.7
1955	107.2	213.2	99.8	188.6	56.9	50.3	107.4	46.8
1956	109.8	209.5	100.3	185.8	59.1	52.4	109.5	47.8
1957	103.4	197.4	100.9	176.5	58.6	52.4	102.5	51.1
1958	91.9	168.2	100.2	153.6	59.8	54.6	91.7	59.6
1959	96.1	163.6	99.8	150.0	64.1	58.8	96.3	61.0
1960	95.0	155.9	100.4	144.0	66.0	61.0	94.7	64.4
1961	94.2	145.9	100.0	136.0	69.2	64.5	94.2	68.5
1962	97.7	143.3	99.2	133.8	73.0	68.2	98.5	69.3
1963	102.6	139.7	98.8	130.8	78.4	73.5	103.8	70.7
1964	107.1	138.8	99.5	130.3	82.2	77.2	107.6	71.7
1965	115.7	135.3	100.1	127.6	90.6	85.5	115.6	74.0
1966	123.7	133.0	101.4	126.1	98.0	93.0	122.0	76.2
1967	117.2	126.0	101.9	120.7	97.1	93.0	115.0	80.9
1968	115.0	122.4	101.6	117.8	97.6	93.9	113.2	83.0
1969	118.2	119.8	102.0	115.8	102.1	98.7	115.9	85.2
1970	112.9	116.9	101.7	113.5	99.5	96.6	111.0	87.0
1971	100.4	109.1	101.0	107.3	93.5	92.0	99.4	92.5
1972	101.3	106.4	100.2	105.0	96.5	95.2	101.2	94.1
1973	105.5	107.4	99.5	105.6	99.9	98.3	106.0	92.7
1974	108.4	108.3	99.2	106.2	102.0	100.1	109.2	91.7
1975	95.2	100.1	101.1	100.3	94.9	95.1	94.2	100.9
1976	99.8	99.2	102.5	99.9	99.9	100.7	97.4	103.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	98.9	101.8	99.4	104.8	105.3	102.3	103.0
1979	108.3	101.1	103.7	101.6	106.6	107.1	104.5	102.5

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.3	72.9	33.5	65.6	70.5	63.5	138.0	46.0
1949	41.8	70.9	34.6	64.2	65.1	58.9	120.6	48.8
1950	42.7	72.7	36.0	65.8	64.9	58.8	118.8	49.5
1951	45.6	75.5	37.5	68.4	66.7	60.5	121.7	49.7
1952	44.4	74.9	38.8	68.2	65.2	59.3	114.5	51.8
1953	44.6	75.2	39.9	68.6	64.9	59.3	111.6	53.1
1954	42.6	72.7	40.7	66.7	63.8	58.6	104.7	56.0
1955	46.0	75.0	41.7	68.8	66.9	61.3	110.3	55.6
1956	48.0	76.9	42.8	70.5	68.1	62.5	112.2	55.7
1957	49.1	76.7	44.5	70.6	69.4	64.0	110.1	58.1
1958	46.5	73.5	45.3	68.1	68.2	63.3	102.6	61.7
1959	49.2	77.9	47.5	72.1	68.2	63.2	103.7	61.0
1960	50.4	78.4	48.8	72.8	69.2	64.3	103.3	62.3
1961	50.2	77.6	49.9	72.4	69.3	64.7	100.5	64.3
1962	52.3	78.7	51.9	73.6	71.0	66.4	100.8	65.8
1963	55.1	79.4	52.8	74.3	74.1	69.4	104.4	66.5
1964	56.5	81.3	54.5	76.2	74.1	69.5	103.7	67.0
1965	61.8	85.6	57.2	80.2	77.0	72.1	107.9	66.8
1966	67.4	88.7	60.3	83.3	80.8	75.9	111.6	68.0
1967	68.6	82.3	63.9	78.8	87.1	83.4	107.4	77.7
1968	76.1	91.5	69.6	87.3	87.2	83.2	109.3	76.1
1969	76.7	94.4	73.4	90.3	84.9	81.2	104.4	77.8
1970	76.1	93.3	76.9	90.1	84.5	81.6	99.0	82.4
1971	78.7	92.4	79.3	89.8	87.5	85.1	99.2	85.8
1972	86.2	95.6	79.6	92.5	93.2	90.1	108.3	83.3
1973	91.9	99.3	85.5	96.6	95.1	92.6	107.5	86.1
1974	94.1	97.8	90.1	96.3	97.6	96.2	104.4	92.1
1975	89.2	92.8	94.0	93.0	95.9	96.2	94.9	101.3
1976	93.6	95.7	97.2	96.0	97.6	97.9	96.3	101.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	106.5	103.1	105.8	101.8	101.1	104.5	96.8
1979	109.7	110.8	107.0	110.0	99.7	99.0	102.5	96.5

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs: Real Output	Labor Input	Capital Input	Multi-Factor Input	Productivity Ratios: Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.7	74.8	16.4	51.6	26.6	18.4	83.9	21.9
1949	14.4	72.2	17.2	50.1	28.7	19.9	83.7	23.8
1950	15.1	69.4	17.8	48.5	31.2	21.8	84.8	25.6
1951	16.7	70.9	18.5	49.6	33.6	23.5	90.0	26.1
1952	17.7	72.4	19.7	50.8	34.8	24.4	89.9	27.2
1953	19.4	74.9	20.7	52.7	36.7	25.8	93.3	27.7
1954	19.8	73.9	21.9	52.2	37.9	26.8	90.3	29.7
1955	21.7	73.8	23.2	52.5	41.4	29.4	93.7	31.4
1956	23.0	76.0	25.0	54.3	42.4	30.3	92.1	32.9
1957	24.7	75.4	27.4	54.5	45.4	32.8	90.2	36.3
1958	25.6	70.9	29.1	52.0	49.2	36.0	87.7	41.1
1959	27.5	70.3	30.9	52.0	52.9	39.1	88.9	44.0
1960	29.1	71.1	33.2	53.4	54.5	41.0	87.8	46.6
1961	30.5	69.8	35.3	53.7	56.7	43.6	86.4	50.5
1962	32.7	70.3	37.8	55.1	59.4	46.5	86.6	53.7
1963	35.1	70.3	40.4	56.3	62.3	49.9	86.7	57.5
1964	37.4	72.7	43.4	58.9	63.5	51.4	86.1	59.7
1965	40.6	76.1	46.9	62.3	65.1	53.4	86.7	61.6
1966	44.4	79.9	50.5	66.0	67.2	55.5	87.8	63.3
1967	47.6	81.1	54.4	68.5	69.6	58.7	87.6	67.1
1968	51.6	82.9	58.2	71.1	72.5	62.2	88.5	70.2
1969	57.2	89.5	62.5	76.6	74.6	63.9	91.5	69.8
1970	62.6	94.1	67.5	81.5	76.8	66.5	92.7	71.7
1971	66.0	91.7	72.5	82.6	79.9	71.9	91.0	79.0
1972	71.5	96.2	77.6	87.4	81.9	74.3	92.2	80.7
1973	76.7	99.0	82.9	91.3	84.0	77.5	92.6	83.7
1974	79.7	100.4	88.3	94.7	84.2	79.4	90.2	88.0
1975	86.8	97.4	91.9	94.8	91.5	89.1	94.4	94.3
1976	93.2	96.8	95.4	96.1	97.0	96.3	97.7	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	105.2	106.0	105.5	103.9	104.2	103.4	100.8
1979	120.6	111.1	112.5	111.7	108.0	108.6	107.2	101.3

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.2	81.4	25.3	49.6	36.7	22.4	72.1	31.1
1949	20.2	81.8	26.9	50.6	39.9	24.7	75.2	32.9
1950	21.7	82.0	28.5	51.4	42.1	26.4	76.0	34.7
1951	25.1	81.9	30.1	52.1	48.2	30.7	83.4	36.8
1952	26.9	81.5	31.8	52.7	51.1	33.0	84.8	39.0
1953	28.9	82.0	33.6	53.7	53.8	35.3	85.9	41.0
1954	31.7	81.7	35.3	54.4	58.3	38.8	90.0	43.1
1955	33.5	82.2	36.8	55.3	60.6	40.8	91.1	44.7
1956	35.9	81.8	38.3	55.8	64.4	43.9	93.8	46.8
1957	38.1	82.6	40.2	57.1	66.8	46.1	94.8	48.7
1958	39.6	82.4	41.9	57.7	68.6	48.1	94.5	50.9
1959	43.3	82.9	43.3	58.6	73.8	52.2	100.0	52.2
1960	46.4	83.3	44.7	59.6	77.9	55.7	103.9	53.7
1961	48.9	82.9	46.0	60.3	81.1	59.0	106.3	55.5
1962	51.1	82.6	47.3	61.0	83.8	61.9	108.1	57.3
1963	53.8	83.8	48.6	62.3	86.4	64.1	110.5	58.0
1964	57.3	83.8	50.2	63.2	90.6	68.3	114.1	59.9
1965	60.1	86.0	52.1	65.2	92.2	69.9	115.5	60.5
1966	64.0	86.8	54.5	67.0	95.5	73.7	117.5	62.7
1967	67.3	88.4	57.4	69.4	96.9	76.1	117.1	65.0
1968	73.6	89.6	60.9	72.0	102.2	82.2	120.9	68.0
1969	78.4	92.5	64.8	75.5	103.8	84.7	121.1	70.0
1970	80.7	95.3	68.9	79.1	102.0	84.7	117.1	72.4
1971	86.4	94.6	73.6	81.7	105.7	91.3	117.4	77.8
1972	89.1	96.7	78.7	85.6	104.1	92.2	113.3	81.4
1973	93.5	99.3	84.0	89.9	103.9	94.1	111.3	84.5
1974	90.0	100.1	88.9	93.2	96.5	89.9	101.2	88.8
1975	96.1	97.7	92.3	94.4	101.8	98.3	104.1	94.4
1976	96.5	98.0	95.8	96.6	99.9	98.5	100.8	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.6	104.6	104.9	100.0	99.4	100.3	99.0
1979	107.8	110.7	109.3	109.8	98.2	97.4	98.7	98.7

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.8	71.3	23.5	63.2	53.5	47.3	143.8	32.9
1949	34.6	71.7	24.3	63.6	54.3	48.2	142.4	33.9
1950	37.9	72.0	27.2	64.5	58.7	52.6	139.6	37.7
1951	38.2	73.4	28.5	65.9	58.0	52.1	134.3	38.8
1952	39.4	73.3	29.1	66.0	59.7	53.7	135.5	39.7
1953	40.7	74.1	30.1	66.8	60.9	54.9	135.2	40.6
1954	41.0	74.4	31.3	67.3	60.8	55.1	130.8	42.1
1955	44.7	76.3	34.3	69.5	64.3	58.6	130.3	45.0
1956	46.0	78.0	36.1	71.3	64.5	59.0	127.4	46.3
1957	46.8	77.9	37.5	71.6	65.3	60.0	124.6	48.1
1958	46.7	77.3	38.4	71.3	65.5	60.4	121.5	49.7
1959	50.0	80.0	40.6	73.9	67.6	62.5	123.2	50.7
1960	50.9	81.0	42.5	75.1	67.7	62.8	119.8	52.4
1961	51.4	80.5	43.5	74.8	68.7	63.8	118.0	54.1
1962	54.7	81.1	45.8	75.7	72.3	67.5	119.4	56.5
1963	56.8	80.6	48.1	75.6	75.1	70.4	118.2	59.6
1964	60.3	83.1	50.7	78.1	77.2	72.5	118.8	61.0
1965	64.2	85.3	54.6	80.5	79.7	75.3	117.6	64.0
1966	67.7	85.5	59.3	81.5	83.1	79.2	114.1	69.4
1967	69.4	84.7	62.0	81.2	85.5	81.9	112.0	73.1
1968	73.6	84.1	66.3	81.3	90.5	87.5	111.0	78.8
1969	75.2	91.9	71.0	88.6	84.8	81.8	105.9	77.2
1970	76.4	88.4	74.0	86.1	88.8	86.5	103.3	83.7
1971	80.3	89.8	78.4	88.0	91.2	89.4	102.5	87.2
1972	86.4	92.2	82.7	90.7	95.3	93.7	104.5	89.7
1973	91.5	94.5	87.6	93.4	97.9	96.8	104.5	92.7
1974	89.7	94.4	90.8	93.8	95.6	95.0	98.7	96.2
1975	90.8	94.3	91.0	93.8	96.8	96.3	99.8	96.5
1976	95.4	96.8	95.0	96.5	98.8	98.5	100.4	98.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	103.4	105.4	103.7	101.2	101.4	99.5	101.9
1979	107.5	105.7	108.8	106.1	101.3	101.7	98.8	102.9

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.1	43.8	13.7	38.3	81.2	70.9	227.6	31.2
1949	31.9	44.4	13.6	38.7	82.2	71.7	234.2	30.6
1950	33.7	45.5	13.6	39.7	85.1	74.1	247.7	29.9
1951	36.2	46.8	13.7	40.7	88.9	77.4	264.8	29.2
1952	37.8	48.6	14.1	42.2	89.4	77.8	267.2	29.1
1953	39.5	50.2	15.0	43.7	90.4	78.8	264.1	29.8
1954	41.1	52.1	14.9	45.3	90.8	78.9	276.5	28.5
1955	44.1	54.3	15.6	47.2	93.4	81.2	282.6	28.7
1956	47.0	55.3	16.3	48.1	97.6	85.0	288.4	29.5
1957	48.8	56.2	16.9	49.0	99.7	86.9	289.8	30.0
1958	49.0	57.8	17.9	50.4	97.1	84.7	274.3	30.9
1959	50.3	59.8	19.3	52.3	96.2	84.2	261.2	32.2
1960	53.1	61.8	20.6	54.3	97.8	85.8	257.2	33.4
1961	54.8	63.1	22.4	55.7	98.5	86.9	245.2	35.4
1962	56.8	65.1	24.4	57.7	98.4	87.3	232.7	37.5
1963	58.3	66.3	27.0	59.3	98.3	87.9	215.6	40.7
1964	60.5	68.6	32.1	62.2	97.3	88.3	188.3	46.9
1965	62.4	70.3	34.8	64.2	97.3	88.8	179.4	49.5
1966	64.9	71.1	37.0	65.3	99.4	91.3	175.4	52.1
1967	68.1	73.3	40.2	67.7	100.5	92.9	169.3	54.9
1968	72.7	76.8	42.5	71.1	102.3	94.6	170.9	55.3
1969	77.9	81.0	48.6	75.8	102.7	96.1	160.1	60.0
1970	79.8	82.7	52.9	77.9	102.5	96.6	150.8	64.1
1971	81.4	84.6	57.2	80.1	101.5	96.2	142.3	67.6
1972	84.3	87.1	64.3	83.4	101.1	96.8	131.1	73.8
1973	88.6	90.6	71.9	87.6	101.2	97.8	123.3	79.4
1974	92.5	93.0	78.7	90.7	101.9	99.4	117.5	84.6
1975	94.5	94.6	84.6	93.0	101.6	99.9	111.8	89.3
1976	95.6	96.4	91.6	95.6	99.9	99.1	104.4	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.7	109.2	106.1	98.6	99.0	95.8	103.3
1979	108.5	110.4	119.2	111.6	97.2	98.3	91.0	108.0

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.4	52.8	61.2	60.2	65.4	74.6	64.4	115.9
1949	41.4	53.6	61.5	60.6	68.3	77.3	67.3	114.8
1950	43.7	54.3	62.1	61.2	71.5	80.6	70.5	114.4
1951	43.3	55.0	62.3	61.5	70.5	78.8	69.5	113.4
1952	45.2	55.9	62.4	61.7	73.3	80.9	72.4	111.6
1953	45.4	57.7	62.7	62.1	73.1	78.7	72.5	108.6
1954	46.3	59.6	63.4	63.0	73.5	77.7	73.0	106.4
1955	47.7	61.7	64.3	64.0	74.6	77.4	74.2	104.3
1956	48.6	62.5	64.9	64.6	75.2	77.7	74.9	103.8
1957	50.1	63.7	65.6	65.4	76.6	78.6	76.3	103.0
1958	52.3	65.4	66.2	66.1	79.1	80.0	79.0	101.2
1959	55.5	66.7	67.1	67.1	82.8	83.2	82.7	100.6
1960	55.9	67.0	68.2	68.1	82.1	83.5	82.0	101.8
1961	58.1	66.2	69.5	69.2	83.9	87.8	83.7	104.9
1962	61.6	67.5	71.1	70.9	86.9	91.2	86.6	105.3
1963	62.3	73.3	73.0	73.0	85.2	85.0	85.3	99.6
1964	64.8	74.5	74.5	74.5	87.0	87.0	87.0	100.0
1965	68.5	74.5	76.7	76.5	89.5	91.9	89.3	102.9
1966	70.3	72.1	78.6	78.1	89.9	97.4	89.4	109.0
1967	71.5	73.0	80.1	79.6	89.8	97.9	89.2	109.7
1968	73.4	72.8	81.6	81.0	90.6	100.8	89.9	112.1
1969	75.1	77.7	83.5	83.1	90.4	96.7	89.9	107.6
1970	74.9	79.1	85.6	85.1	88.0	94.7	87.5	108.2
1971	80.0	84.1	88.3	87.9	90.9	95.1	90.6	105.0
1972	82.9	88.2	91.2	91.0	91.1	94.0	90.9	103.4
1973	84.5	91.4	94.6	94.3	89.6	92.5	89.4	103.5
1974	86.6	92.5	96.1	95.8	90.4	93.7	90.2	103.9
1975	85.4	91.3	97.1	96.7	88.4	93.5	88.0	106.3
1976	89.9	93.6	98.3	98.0	91.7	96.0	91.4	105.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	110.9	101.9	102.9	99.3	92.1	100.3	91.9
1979	101.5	118.6	103.8	105.3	96.4	85.7	97.8	87.6

PRELIMINARY: April 13, 1981

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	32.5	44.5	27.7	39.1	83.1	72.9	117.4	62.1
1949	32.6	45.3	28.5	39.9	81.7	71.9	114.4	62.8
1950	33.9	45.5	29.6	40.3	84.1	74.5	114.5	65.1
1951	34.4	46.3	30.8	41.2	83.5	74.3	111.8	66.4
1952	36.7	48.0	31.8	42.6	86.0	76.4	115.3	66.3
1953	37.8	49.5	33.1	44.1	85.8	76.4	114.4	66.8
1954	38.0	50.6	34.4	45.2	84.1	75.1	110.7	67.9
1955	39.4	52.9	36.0	47.3	83.3	74.5	109.5	68.0
1956	40.3	55.5	37.7	49.6	81.3	72.7	106.8	68.0
1957	40.4	56.8	39.5	51.0	79.2	71.1	102.4	69.5
1958	43.4	56.4	41.3	51.3	84.7	76.9	105.3	73.1
1959	40.6	58.2	43.2	53.0	76.6	69.9	94.0	74.4
1960	46.0	60.1	45.4	55.0	83.7	76.6	101.5	75.5
1961	49.3	61.1	47.8	56.5	87.2	80.7	103.0	78.3
1962	50.2	62.3	50.6	58.3	86.1	80.5	99.2	81.2
1963	49.9	64.7	53.3	60.8	82.0	77.1	93.5	82.4
1964	54.5	65.7	56.5	62.5	87.2	83.0	96.6	86.0
1965	57.8	67.2	59.7	64.6	89.4	85.9	96.7	88.8
1966	60.9	69.9	63.1	67.6	90.2	87.2	96.5	90.4
1967	65.7	74.7	66.4	71.8	91.5	87.9	99.0	88.8
1968	66.8	79.1	70.3	76.1	87.9	84.5	95.0	89.0
1969	69.0	74.5	74.3	74.4	92.8	92.7	92.9	99.8
1970	70.7	82.2	77.7	80.8	87.5	86.0	91.1	94.4
1971	70.7	83.1	80.7	82.3	85.8	85.0	87.6	97.1
1972	75.2	84.0	84.1	84.0	89.5	89.6	89.4	100.2
1973	84.5	88.0	87.9	88.0	96.0	96.0	96.1	99.9
1974	89.7	92.6	91.2	92.2	97.4	96.9	98.4	98.5
1975	86.7	92.5	93.9	92.9	93.3	93.8	92.3	101.5
1976	93.6	95.3	96.8	95.8	97.7	98.2	96.7	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	105.4	103.4	105.0	98.9	98.5	100.4	98.1
1979	106.8	110.2	106.6	109.3	97.7	96.9	100.1	96.8

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	72.1	102.0	45.4	40.9	64.3	63.6
1949	45.2	110.8	74.7	101.1	44.7	40.8	60.6	67.4
1950	48.3	110.6	76.6	101.6	47.5	43.7	63.0	69.3
1951	48.9	112.9	78.3	103.7	47.2	43.3	62.5	69.3
1952	51.6	112.5	77.2	103.0	50.1	45.9	66.9	68.7
1953	54.7	112.2	76.2	102.6	53.3	48.7	71.8	67.9
1954	54.1	110.7	76.1	101.5	53.3	48.8	71.1	68.7
1955	55.3	111.1	78.3	102.4	54.0	49.8	70.7	70.5
1956	57.8	111.6	78.9	103.0	56.1	51.8	73.3	70.7
1957	59.9	108.5	78.9	100.8	59.4	55.2	75.9	72.7
1958	60.3	106.8	79.6	99.9	60.4	56.5	75.7	74.6
1959	61.1	107.6	79.6	100.4	60.8	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.1	62.2	58.0	79.1	73.3
1961	62.9	106.7	79.2	99.7	63.1	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.3	65.9	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.1	70.8	66.6	86.8	76.8
1964	71.0	105.1	81.3	99.1	71.7	67.6	87.4	77.4
1965	74.2	106.3	80.8	99.8	74.3	69.7	91.7	76.0
1966	78.3	107.3	82.6	101.0	77.5	73.0	94.8	77.0
1967	77.1	107.6	84.9	101.9	75.6	71.6	90.8	78.9
1968	78.1	107.1	86.3	101.9	76.6	72.9	90.6	80.5
1969	81.6	107.6	86.8	102.4	79.6	75.8	93.9	80.7
1970	82.7	106.5	88.1	101.9	81.2	77.7	93.9	82.7
1971	86.0	104.3	89.5	100.6	85.5	82.5	96.1	85.8
1972	91.2	103.3	90.3	100.0	91.1	88.3	101.0	87.4
1973	101.2	101.5	90.5	98.7	102.5	99.8	111.8	89.2
1974	95.0	101.1	92.3	98.9	96.0	94.0	102.9	91.3
1975	95.6	98.1	95.2	97.4	98.2	97.4	100.5	97.0
1976	99.6	100.2	98.2	99.7	99.9	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.2	100.7	99.3	99.8	97.7	102.1
1979	105.0	100.7	105.7	102.0	102.9	104.3	99.3	105.0

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	51.3	99.3	54.8	33.3	106.1	31.4
1949	58.3	152.9	54.8	95.9	60.8	38.2	106.5	35.8
1950	55.3	146.7	53.2	92.3	59.9	37.7	104.0	36.3
1951	66.8	149.7	63.2	98.3	67.9	44.6	105.6	42.3
1952	64.6	151.3	64.5	99.6	64.9	42.7	100.3	42.6
1953	59.6	147.5	64.1	97.7	61.0	40.4	93.0	43.4
1954	55.9	145.6	62.6	96.1	58.1	38.4	89.2	43.0
1955	59.4	147.9	66.3	98.9	60.1	40.2	89.7	44.8
1956	63.0	144.3	63.0	95.7	65.8	43.7	99.9	43.7
1957	65.7	139.5	64.4	94.2	69.8	47.1	102.0	46.2
1958	70.0	138.8	64.2	93.7	74.7	50.5	109.1	46.2
1959	74.3	137.9	64.2	93.3	79.6	53.9	115.7	46.5
1960	76.7	134.5	66.1	93.1	82.4	57.0	116.0	49.2
1961	79.9	132.3	67.7	93.2	85.7	60.4	117.9	51.2
1962	82.7	130.2	69.7	93.6	88.4	63.5	118.6	53.6
1963	83.4	127.4	71.4	93.5	89.3	55.5	116.9	56.0
1964	80.2	130.3	72.7	95.4	84.1	61.6	110.3	55.8
1965	79.4	122.5	75.2	93.8	84.5	64.8	105.6	61.3
1966	80.7	123.6	77.9	95.9	84.1	65.2	103.5	63.0
1967	83.4	125.0	80.1	97.7	85.4	66.7	104.2	64.0
1968	84.6	120.3	82.5	97.3	87.0	70.4	102.6	68.6
1969	85.9	116.1	83.5	96.3	89.2	74.0	102.8	71.9
1970	91.0	117.6	82.7	96.4	94.5	77.4	110.0	70.4
1971	92.6	109.5	84.4	94.2	98.2	84.5	109.7	77.0
1972	95.0	105.6	87.5	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.6	81.8
1974	99.4	110.7	96.1	101.8	97.6	89.8	103.4	86.8
1975	102.2	108.4	95.3	100.4	101.8	94.3	107.2	87.9
1976	104.1	107.5	97.3	101.3	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	101.9	101.0	100.2	101.9	99.3	102.6
1979	103.1	94.4	102.8	99.6	103.5	109.2	100.3	108.9

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	39.2	112.5	34.5	27.4	99.0	27.7
1949	35.5	121.9	44.5	100.2	35.4	29.1	79.8	36.5
1950	37.2	134.6	53.1	112.0	33.3	27.7	70.1	39.5
1951	39.1	129.8	60.5	111.0	35.2	30.1	64.5	46.6
1952	38.4	122.9	60.2	106.0	36.2	31.2	63.7	49.0
1953	37.7	122.2	63.3	106.5	35.4	30.8	59.5	51.8
1954	35.7	108.4	65.2	97.4	36.6	32.9	54.7	60.1
1955	39.7	113.8	69.0	102.4	38.7	34.9	57.5	60.6
1956	40.4	110.8	73.8	101.9	39.7	36.5	54.7	66.6
1957	39.4	103.5	72.6	96.4	40.9	38.1	54.4	70.1
1958	38.8	96.5	73.8	91.8	42.3	40.2	52.6	76.5
1959	42.5	103.3	73.4	96.5	44.1	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.2	44.0	41.4	55.7	74.2
1961	41.7	96.6	73.4	91.2	45.7	43.2	56.8	76.0
1962	44.3	98.9	73.9	93.1	47.6	44.8	60.0	74.7
1963	56.1	97.0	74.2	91.7	61.2	57.9	75.7	76.5
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.5	76.1
1965	65.5	104.5	77.2	98.2	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.3	102.7	69.3	65.2	87.5	74.5
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.8	105.7	68.7	65.0	84.7	76.8
1969	74.4	111.1	88.0	105.7	70.4	67.0	84.6	79.2
1970	78.7	105.9	89.0	102.0	77.2	74.3	88.4	84.0
1971	81.9	105.7	90.5	102.2	80.2	77.5	90.5	85.6
1972	87.9	111.0	93.5	106.9	82.2	79.2	94.0	84.2
1973	91.4	112.3	95.9	108.5	84.3	81.4	95.3	85.5
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.9	94.3	81.2	82.1	78.2	105.1
1976	87.9	100.2	98.8	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.6	100.7	99.8	101.4	101.6	100.5	101.1
1979	102.9	97.9	100.5	98.5	104.4	105.0	102.3	102.6

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	57.0	88.6	48.8	47.0	75.8	62.0
1949	43.1	89.9	55.3	86.6	49.8	47.9	77.8	61.5
1950	46.7	92.9	57.5	89.5	52.2	50.3	81.2	61.9
1951	49.4	92.1	55.0	88.4	55.9	53.7	89.9	59.7
1952	50.5	94.4	55.4	90.6	55.8	53.5	91.2	58.7
1953	51.1	96.4	55.8	92.4	55.3	52.9	91.6	57.8
1954	48.0	89.8	53.7	86.2	55.6	53.4	89.3	59.8
1955	51.5	94.5	54.2	90.4	56.9	54.5	95.0	57.3
1956	52.6	94.1	48.5	89.3	58.9	55.9	108.6	51.5
1957	51.9	92.6	49.9	88.2	58.9	56.0	104.1	53.8
1958	50.9	88.4	49.0	84.4	60.4	57.6	103.9	55.5
1959	54.2	95.0	50.0	90.3	60.0	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.3	62.8	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.8	62.8	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.9	62.8	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.3	64.5	61.7	105.4	58.5
1964	63.0	99.4	59.4	95.1	66.2	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.8	68.6	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.5	71.6	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.4	71.1	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.3	73.5	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.4	73.3	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.2	71.0	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.1	71.6	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.3	84.2	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.8	87.1	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.2	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.4	101.4	101.4	104.4	104.4	104.4	100.0
1979	108.1	99.2	101.6	99.5	108.6	108.9	106.4	102.4

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	88.7	110.4	40.9	37.8	50.9	74.2
1949	39.6	107.3	80.7	99.5	39.8	36.9	49.1	75.2
1950	42.3	115.8	74.6	104.1	40.6	36.5	56.7	64.4
1951	42.8	119.5	72.4	106.3	40.3	35.8	59.1	60.6
1952	42.4	114.4	67.9	101.5	41.7	37.0	62.4	59.3
1953	40.4	111.3	63.0	97.9	41.2	36.3	64.1	56.6
1954	39.0	102.8	60.3	91.0	42.8	37.9	64.6	58.7
1955	45.2	107.4	58.6	93.9	48.1	42.1	77.1	54.5
1956	45.3	104.4	57.9	91.5	49.4	43.4	78.1	55.5
1957	42.7	94.1	50.0	82.0	52.1	45.4	85.5	53.1
1958	39.7	89.8	47.7	78.2	50.7	44.2	83.2	53.1
1959	47.0	97.9	45.9	83.8	56.1	48.0	102.4	46.9
1960	43.9	92.5	48.0	80.1	54.8	47.5	91.5	52.0
1961	42.1	87.9	48.5	76.8	54.9	48.0	86.9	55.2
1962	42.3	89.1	49.7	78.0	54.2	47.4	85.0	55.8
1963	52.7	87.4	52.2	77.2	68.3	60.4	101.0	59.8
1964	64.0	90.5	54.1	80.0	79.9	70.7	118.3	59.7
1965	71.7	93.4	57.3	82.9	86.4	76.7	125.1	61.3
1966	70.0	94.5	61.0	84.5	82.9	74.1	114.7	64.6
1967	71.9	91.8	62.7	82.9	86.8	78.4	114.7	68.3
1968	74.8	91.3	64.6	82.9	90.2	81.9	115.9	70.7
1969	73.8	94.8	68.3	86.4	85.4	77.8	108.1	72.0
1970	75.7	89.2	70.5	83.3	90.9	84.9	107.4	79.1
1971	77.8	92.3	73.3	86.3	90.2	84.3	106.1	79.4
1972	88.6	101.1	77.9	93.7	94.6	87.7	113.7	77.1
1973	93.2	105.0	83.0	98.0	95.1	88.7	112.2	79.1
1974	90.9	96.6	90.3	94.6	96.1	94.0	100.7	93.4
1975	86.0	81.9	92.0	85.1	101.0	105.0	93.4	112.4
1976	94.9	94.1	95.6	94.6	100.4	100.9	99.2	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.3	106.0	104.9	96.6	97.1	95.6	101.6
1979	103.7	106.0	111.0	107.7	96.3	97.8	93.4	104.7

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	66.0	75.1	57.0	55.6	64.9	85.7
1949	40.5	69.3	63.5	68.1	59.4	58.4	63.8	91.5
1950	49.1	81.8	66.0	79.1	62.1	60.1	74.5	80.7
1951	46.9	79.2	72.1	77.7	60.3	59.2	65.0	91.1
1952	51.9	79.7	74.0	78.4	66.2	65.2	70.2	92.8
1953	50.4	81.6	73.5	80.0	63.0	61.7	68.5	90.1
1954	48.3	74.3	71.6	73.4	65.8	65.1	67.5	96.4
1955	56.2	81.0	74.4	79.6	70.5	69.3	75.5	91.8
1956	56.5	82.1	79.3	81.2	69.6	68.8	71.2	96.6
1957	53.9	80.5	59.5	77.2	69.8	66.9	90.6	73.9
1958	49.1	76.7	59.1	73.8	66.5	64.0	83.1	77.1
1959	56.1	83.9	60.0	80.2	69.9	66.8	93.5	71.5
1960	55.3	82.4	60.4	79.0	70.1	67.1	91.6	73.3
1961	53.3	79.2	60.1	76.1	70.1	67.3	88.8	75.8
1962	57.6	83.8	60.7	80.1	71.9	68.8	94.9	72.5
1963	60.2	83.7	62.1	80.3	75.0	71.9	96.9	74.2
1964	65.3	87.6	63.3	83.8	77.9	74.6	103.2	72.2
1965	73.7	93.3	65.9	89.1	82.8	79.0	111.9	70.6
1966	78.0	98.7	70.8	94.3	82.7	79.0	110.3	71.7
1967	74.0	96.5	73.6	92.8	79.8	76.7	100.6	76.3
1968	79.5	99.2	75.4	95.3	83.4	80.1	105.3	76.1
1969	84.8	100.7	79.1	97.1	87.3	84.2	107.2	78.6
1970	72.8	93.2	82.6	91.4	79.7	78.1	88.2	88.6
1971	76.3	95.8	83.7	93.7	81.4	79.7	91.2	87.4
1972	92.2	104.9	87.6	102.0	90.4	88.0	105.3	83.6
1973	94.5	109.5	93.2	106.8	88.5	86.3	101.4	85.2
1974	91.3	103.8	98.3	102.9	88.7	88.0	92.9	94.7
1975	80.2	86.3	95.6	87.9	91.3	92.9	83.9	110.8
1976	92.2	92.8	97.8	93.6	98.5	99.4	94.3	105.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.4	104.9	105.3	103.7	103.6	104.1	99.5
1979	112.6	101.6	108.8	102.8	109.5	110.8	103.5	107.1

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.2	59.6	50.7	44.3	73.2	60.5
1949	30.1	64.1	42.4	57.4	52.4	47.0	71.0	66.2
1950	39.2	70.4	43.6	62.0	63.2	55.6	89.8	61.9
1951	41.9	73.8	45.2	64.8	64.7	56.7	92.7	61.2
1952	38.5	72.2	46.4	64.2	60.1	53.4	83.1	64.3
1953	40.8	76.5	47.2	67.3	60.7	53.4	86.4	61.8
1954	41.9	75.5	48.6	67.2	62.4	55.5	86.2	64.3
1955	46.2	79.3	50.6	70.4	65.6	58.2	91.3	63.8
1956	47.5	81.4	52.9	72.5	65.5	58.4	89.9	64.9
1957	44.0	81.1	54.6	73.0	60.2	54.2	80.6	67.3
1958	44.3	79.6	55.4	72.3	61.2	55.6	80.0	69.5
1959	50.1	84.1	56.5	75.7	66.2	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.7	64.1	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.6	66.8	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.2	68.4	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.2	68.8	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.7	72.8	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.4	73.9	67.6	94.7	71.4
1966	66.7	97.1	70.0	89.0	75.0	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.8	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	93.0	77.3	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.6	82.5	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.4	78.6	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	84.9	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.7	92.7	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.3	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.0	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.5	104.1	102.3	100.0	100.8	98.2	102.6
1979	105.2	102.7	110.0	104.8	100.3	102.5	95.6	107.1

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	50.5	66.7	64.6	61.0	85.2	71.7
1949	45.1	69.5	50.5	65.8	68.6	65.0	89.3	72.7
1950	45.5	69.6	50.7	65.9	69.0	65.4	89.7	72.9
1951	46.5	71.0	50.7	67.1	69.3	65.5	91.6	71.5
1952	47.4	71.8	49.7	67.6	70.1	66.0	95.3	69.2
1953	49.4	74.1	48.6	69.2	71.3	66.7	101.6	65.6
1954	52.0	74.2	47.9	69.2	75.1	70.0	108.4	64.6
1955	55.3	76.3	48.0	71.0	77.9	72.4	115.1	62.9
1956	57.4	78.7	47.4	72.8	78.9	73.0	121.1	60.3
1957	58.2	79.0	47.1	73.0	79.8	73.7	123.6	59.6
1958	56.7	78.0	47.2	72.2	78.5	72.7	120.2	60.5
1959	61.0	80.0	49.9	74.3	82.0	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.4	81.8	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.6	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.5	85.1	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.5	91.0	85.8	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.8	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.4	96.7	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.6	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.3	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.4	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.7	104.6	104.7	99.2	99.2	99.3	99.9
1979	106.4	109.7	108.5	109.4	97.2	97.0	98.1	98.9

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	28.6	47.3	36.5	28.1	60.4	46.6
1949	16.9	57.5	30.7	46.1	36.8	29.5	55.2	53.4
1950	20.3	59.8	32.8	48.3	41.9	33.9	61.8	54.9
1951	21.7	65.9	36.1	53.3	40.7	32.9	60.1	54.7
1952	21.9	67.3	39.1	55.4	39.4	32.5	55.9	58.1
1953	23.4	71.0	41.3	58.5	40.1	33.0	56.8	58.1
1954	24.7	69.5	43.3	58.6	42.0	35.5	56.9	62.4
1955	28.4	71.5	45.3	60.6	46.9	39.8	62.8	63.3
1956	29.8	73.7	47.7	63.0	47.2	40.4	62.4	64.8
1957	31.1	74.7	49.9	64.6	48.0	41.5	62.2	66.8
1958	30.5	73.1	51.7	64.6	47.2	41.7	59.0	70.7
1959	35.0	75.3	53.4	66.6	53.7	47.5	67.0	70.9
1960	35.5	77.1	53.9	67.8	52.4	46.1	65.9	69.9
1961	37.3	77.2	55.1	68.4	54.5	48.3	67.6	71.4
1962	39.9	79.1	56.4	70.1	56.9	50.4	70.8	71.2
1963	44.7	80.5	57.4	71.3	62.6	55.5	77.9	71.2
1964	48.4	81.9	59.0	72.9	66.4	59.1	82.0	72.0
1965	52.8	85.2	62.3	76.2	69.3	62.0	84.8	73.1
1966	56.2	90.0	66.0	80.6	69.8	62.5	85.2	73.3
1967	57.3	93.3	69.5	84.0	68.2	61.4	82.5	74.4
1968	65.2	96.7	72.1	87.1	74.9	67.6	90.5	74.5
1969	68.0	99.1	75.0	89.8	75.7	68.6	90.7	75.6
1970	68.8	97.9	77.5	90.0	76.4	70.2	88.8	79.1
1971	73.0	94.5	79.1	88.5	82.4	77.2	92.3	83.7
1972	79.9	94.4	79.9	88.8	89.9	84.6	99.9	84.7
1973	87.6	97.1	81.1	90.9	96.4	90.3	108.0	83.6
1974	85.4	98.5	85.9	93.7	91.2	86.7	99.5	87.2
1975	85.0	93.3	89.4	91.8	92.6	91.1	95.1	95.8
1976	95.1	96.9	94.2	95.9	99.3	98.2	101.0	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.7	103.9	103.2	100.1	100.5	99.4	101.1
1979	109.0	104.3	108.2	105.8	103.0	104.5	100.8	103.7

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.4	108.1	41.0	63.4	59.1	34.6	91.2	38.0
1949	40.2	104.4	43.2	64.0	62.7	38.5	92.9	41.4
1950	43.4	103.6	43.4	64.0	67.9	41.9	100.0	41.9
1951	45.2	109.7	45.2	67.1	67.3	41.2	99.9	41.2
1952	45.6	110.4	47.7	69.3	65.9	41.4	95.6	43.3
1953	47.6	114.3	50.8	72.8	65.4	41.7	93.7	44.5
1954	47.5	113.1	52.7	74.0	64.2	42.0	90.0	46.6
1955	52.6	112.7	54.4	75.2	70.0	46.7	96.6	48.3
1956	54.2	112.4	56.5	76.7	70.6	48.2	95.9	50.2
1957	52.6	110.6	60.5	79.3	66.3	47.5	86.9	54.7
1958	53.7	107.2	59.5	77.6	69.2	50.1	90.2	55.5
1959	60.6	103.4	59.3	76.3	79.5	58.6	102.2	57.3
1960	62.2	101.8	60.4	76.3	81.5	61.1	103.0	59.4
1961	64.5	97.2	61.8	75.3	85.7	66.4	104.4	63.6
1962	69.6	94.6	62.9	74.9	92.9	73.6	110.7	66.5
1963	71.8	90.8	63.5	73.8	97.4	79.1	113.2	69.9
1964	73.6	88.6	63.9	73.2	100.6	83.1	115.1	72.2
1965	77.4	89.3	65.2	74.2	104.4	86.8	118.7	73.1
1966	79.1	90.9	66.9	75.8	104.2	87.0	118.2	73.6
1967	75.9	91.2	69.9	77.7	101.5	86.5	112.8	76.7
1968	81.1	92.1	72.9	79.9	101.5	88.0	111.2	79.2
1969	77.7	89.9	75.5	80.5	96.5	86.4	102.9	84.0
1970	89.4	95.0	78.2	84.1	106.3	94.1	114.3	82.3
1971	94.6	97.0	81.1	86.6	109.2	97.5	116.7	83.5
1972	91.8	96.8	82.6	87.6	104.8	94.8	111.1	85.3
1973	107.0	95.1	83.7	87.7	122.0	112.5	127.9	88.0
1974	102.5	96.2	87.7	90.7	113.0	106.5	116.8	91.2
1975	91.8	93.1	92.0	92.4	99.3	98.5	99.7	98.8
1976	101.1	96.7	96.6	96.6	104.6	104.5	104.7	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	105.5	102.3	103.1	101.4	99.1	102.2	97.0
1979	111.5	108.7	104.3	105.5	105.7	102.5	106.9	95.9

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	29.6	39.4	57.9	54.1	77.1	70.1
1949	20.9	37.7	30.5	36.1	57.9	55.5	68.4	81.1
1950	23.5	43.8	28.1	40.3	58.3	53.6	83.7	64.1
1951	30.3	46.7	33.0	43.7	69.4	64.9	91.7	70.8
1952	30.6	47.3	35.6	44.7	68.4	64.6	85.8	75.3
1953	30.3	50.0	37.7	47.3	64.0	60.5	80.4	75.3
1954	27.2	45.0	38.4	43.6	62.3	60.4	70.7	85.4
1955	30.1	52.0	39.2	49.1	61.3	58.0	77.0	75.4
1956	29.8	51.1	41.3	48.9	60.8	58.3	72.1	80.8
1957	29.6	51.9	42.5	49.8	59.4	57.0	69.6	81.9
1958	28.7	46.5	43.9	46.0	62.3	61.6	65.3	94.4
1959	35.7	52.7	45.5	51.2	69.9	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.5	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.3	78.3	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.5	83.7	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.5	86.1	82.9	100.1	82.8
1965	55.7	67.8	54.6	64.9	85.8	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.1	86.3	82.3	103.5	79.5
1967	60.7	73.5	61.4	70.8	85.7	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.1	88.8	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.4	93.0	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.3	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.2	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.1	95.9	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.2	100.3	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.7	94.2	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.8	105.5	105.7	99.9	99.8	100.1	99.8
1979	106.4	107.4	108.6	107.7	98.8	99.0	98.0	101.1

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	72.3	150.5	68.7	64.0	143.0	44.8
1949	91.9	150.6	72.0	141.2	65.1	61.0	127.7	47.8
1950	91.3	156.0	86.3	148.7	61.4	58.6	105.8	55.3
1951	97.8	147.1	76.5	139.2	70.2	66.4	127.8	52.0
1952	86.2	154.7	84.5	147.2	58.6	55.7	102.0	54.6
1953	91.3	154.0	83.9	146.5	62.3	59.2	108.8	54.5
1954	83.9	145.0	83.8	138.9	60.4	57.8	100.1	57.8
1955	88.1	153.2	87.9	146.7	60.1	57.5	100.2	57.4
1956	88.7	151.0	68.3	140.8	63.0	58.7	129.9	45.2
1957	86.9	146.7	68.5	137.3	63.3	59.2	126.9	46.7
1958	82.1	139.2	67.3	130.7	62.8	59.0	121.9	48.4
1959	100.6	148.6	73.4	139.9	71.9	67.7	136.9	49.4
1960	90.6	141.2	74.6	133.3	67.9	64.1	121.4	52.8
1961	91.4	140.9	75.4	133.1	68.7	64.9	121.2	53.5
1962	99.0	142.0	76.6	134.2	73.8	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.6	76.9	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.4	79.3	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.7	82.5	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.7	82.1	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.3	78.0	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.7	79.5	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	101.7	101.2	101.7	99.6	99.5	100.0	99.6
1979	98.2	95.3	101.5	96.1	102.2	103.1	96.8	106.5

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	38.2	69.5	68.8	58.5	125.2	46.7
1949	44.6	75.0	39.1	64.8	68.7	59.4	114.1	52.1
1950	53.4	81.9	40.8	70.3	75.9	65.2	130.9	49.8
1951	57.3	88.3	43.6	75.7	75.7	64.9	131.5	49.3
1952	55.0	84.3	44.8	73.1	75.2	65.3	122.6	53.2
1953	58.2	86.4	46.1	75.0	77.6	67.4	126.3	53.4
1954	56.7	81.8	47.2	71.9	78.8	69.3	120.1	57.7
1955	65.4	88.4	50.3	77.5	84.3	73.9	130.0	56.9
1956	64.3	90.3	54.4	80.0	80.4	71.3	118.2	60.3
1957	62.5	87.6	57.4	78.8	79.3	71.4	109.0	65.5
1958	61.0	82.2	58.8	75.3	81.0	74.2	103.8	71.4
1959	69.0	90.2	62.6	82.1	84.1	76.5	110.4	69.3
1960	67.5	89.2	64.0	81.9	82.3	75.6	105.4	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.0	75.7
1962	71.3	87.9	66.5	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.1	83.5	92.7	86.5	113.7	76.1
1964	82.6	92.6	69.6	86.1	96.0	89.3	118.8	75.2
1965	85.6	95.2	71.9	88.6	96.6	90.0	119.1	75.6
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.1	77.4
1967	83.7	94.5	77.5	90.1	92.9	88.5	108.0	82.0
1968	87.3	96.1	78.8	91.6	95.4	90.9	110.8	82.0
1969	92.5	98.9	81.4	94.4	98.0	93.5	113.7	82.3
1970	88.9	95.6	83.4	92.5	96.2	93.0	106.6	87.2
1971	90.6	97.2	84.7	93.9	96.4	93.2	106.9	87.2
1972	99.4	103.0	87.3	98.9	100.5	96.5	113.9	84.7
1973	107.3	108.2	90.8	103.7	103.4	99.1	118.1	83.9
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.6
1975	91.7	92.4	95.7	93.2	98.3	99.2	95.8	103.6
1976	100.6	95.8	97.7	96.3	104.5	105.0	103.0	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.2	104.3	105.0	104.0	103.8	104.7	99.2
1979	111.4	107.3	108.9	107.7	103.4	103.9	102.3	101.5

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs: Real Output	Labor Input	Capital Input	Multi-Factor Input	Productivity Ratios: Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	39.4	84.1	96.8	80.1	206.3	38.8
1949	72.4	85.7	40.4	73.1	99.0	84.4	179.3	47.1
1950	85.6	99.7	41.9	83.5	102.6	85.9	204.3	42.0
1951	102.6	110.8	44.5	92.2	111.4	92.6	230.6	40.2
1952	91.5	102.1	47.9	87.0	105.2	89.6	190.9	46.9
1953	105.2	110.9	50.9	94.1	111.7	94.9	206.6	45.9
1954	82.2	92.8	52.2	81.7	100.6	88.6	157.5	56.3
1955	101.0	106.5	53.8	92.0	109.8	94.8	187.7	50.5
1956	99.8	108.5	57.5	94.5	105.6	91.9	173.6	53.0
1957	100.6	105.1	60.8	93.1	108.1	95.7	165.6	57.8
1958	76.4	86.9	63.3	80.9	94.3	87.8	120.6	72.8
1959	84.3	93.5	63.5	85.7	98.3	90.1	132.6	67.9
1960	82.8	94.5	65.6	87.0	95.2	87.7	126.3	69.4
1961	78.9	88.7	66.8	83.3	94.8	88.9	118.1	75.3
1962	83.9	91.7	67.4	85.5	98.0	91.5	124.5	73.5
1963	90.4	94.1	68.3	87.5	103.3	96.1	132.3	72.7
1964	102.2	101.1	70.1	93.1	109.8	101.1	145.8	69.3
1965	110.6	107.7	72.5	98.5	112.3	102.7	152.6	67.3
1966	118.0	111.3	76.4	102.2	115.4	106.0	154.4	68.7
1967	111.6	106.7	80.2	100.1	111.5	104.6	139.1	75.2
1968	111.0	107.6	82.9	101.6	109.3	103.2	134.0	77.0
1969	112.5	111.5	85.2	105.0	107.1	100.9	132.0	76.4
1970	103.1	104.4	87.7	100.3	102.7	98.7	117.5	84.0
1971	100.4	96.5	88.4	94.5	106.2	104.0	113.6	91.6
1972	10[illegible].1	99.7	89.5	97.2	110.2	107.4	119.6	89.8
1973	125.9	109.0	89.6	104.2	120.8	115.5	140.6	82.2
1974	127.4	109.9	92.7	105.7	120.6	115.9	137.4	84.4
1975	96.0	93.7	96.0	94.2	101.9	102.5	100.0	102.5
1976	100.0	96.5	98.4	97.0	103.2	103.7	101.7	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.6	103.8	105.1	104.6	107.4	97.4
1979	113.3	105.9	102.9	105.3	107.6	107.0	110.1	97.2

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	65.8	26.3	57.7	66.7	58.5	146.3	40.0
1949	35.2	58.0	26.7	51.6	68.2	60.8	131.8	46.1
1950	42.0	66.9	29.3	59.3	70.8	62.7	143.1	43.8
1951	45.8	74.7	33.4	66.3	69.1	61.3	137.0	44.8
1952	48.9	75.3	35.4	67.3	72.6	64.9	137.9	47.0
1953	53.9	82.9	39.7	74.1	72.6	65.0	135.8	47.9
1954	49.4	73.9	38.7	66.9	73.9	66.9	127.7	52.4
1955	52.8	78.3	43.4	71.5	73.9	67.4	121.7	55.4
1956	53.7	78.8	45.7	72.3	74.2	68.1	117.5	58.0
1957	54.8	80.0	50.3	74.3	73.8	68.6	108.9	62.9
1958	49.8	72.3	49.3	68.1	73.2	68.9	101.2	68.1
1959	55.6	76.7	51.3	72.0	77.2	72.4	108.4	66.8
1960	55.6	76.9	52.3	72.3	76.9	72.3	106.2	68.0
1961	55.8	73.8	52.8	69.9	79.9	75.6	105.8	71.5
1962	60.8	78.1	54.0	73.6	82.6	77.9	112.6	69.2
1963	63.4	80.7	55.6	76.0	83.5	78.6	114.2	68.9
1964	67.5	83.2	58.8	78.7	85.8	81.1	114.7	70.7
1965	74.6	89.0	62.9	84.2	88.6	83.7	118.5	70.6
1966	81.7	96.8	67.1	91.3	89.5	84.4	121.8	69.3
1967	83.5	99.6	70.9	94.3	88.6	83.8	117.8	71.2
1968	88.3	103.8	75.0	98.4	89.8	85.1	117.8	72.2
1969	93.3	106.9	77.1	101.4	92.0	87.2	120.9	72.1
1970	85.2	97.9	78.1	94.2	90.4	87.0	109.1	79.7
1971	81.7	92.5	78.9	90.0	90.8	88.3	103.5	85.3
1972	89.9	98.2	81.1	95.0	94.6	91.5	110.8	82.6
1973	100.0	105.7	86.4	102.1	97.9	94.6	115.8	81.7
1974	90.4	103.0	92.8	101.1	89.4	87.7	97.4	90.1
1975	81.3	90.6	93.7	91.1	89.2	89.8	86.8	103.4
1976	92.0	95.3	96.7	95.5	96.3	96.6	95.2	101.4
1977	100.0	100.0	100.1	100.0	100.0	100.0	99.9	100.1
1978	104.4	105.7	104.7	105.5	99.0	98.8	99.7	99.1
1979	110.3	109.0	110.0	109.2	101.0	101.2	100.3	100.9

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.2	46.2	34.7	31.4	61.2	51.3
1949	14.7	43.9	25.5	40.3	36.6	33.6	57.8	58.1
1950	17.9	52.2	26.1	47.1	38.0	34.3	68.7	49.9
1951	21.3	59.1	28.8	53.2	40.1	36.1	74.0	48.8
1952	26.1	63.7	31.4	57.4	45.5	41.0	83.1	49.3
1953	27.1	71.3	32.2	63.7	42.6	38.0	84.3	45.1
1954	24.3	61.9	30.8	55.9	43.5	39.2	78.9	49.8
1955	26.1	65.4	31.7	58.8	44.4	39.9	82.5	48.4
1956	28.4	69.9	34.3	62.9	45.2	40.7	82.8	49.1
1957	29.5	70.0	33.2	62.8	47.0	42.2	88.9	47.4
1958	27.8	64.5	33.1	58.4	47.6	43.1	83.9	51.3
1959	33.3	73.1	35.3	65.7	50.7	45.6	94.4	48.3
1960	35.0	75.5	37.7	68.1	51.4	46.3	92.8	49.9
1961	36.9	76.2	40.0	69.1	53.4	48.5	92.3	52.5
1962	41.6	81.3	43.9	74.0	56.2	51.1	94.6	54.0
1963	45.6	80.0	45.7	73.4	62.1	57.0	99.7	57.2
1964	48.2	80.0	48.4	73.9	65.2	60.3	99.6	60.5
1965	57.4	87.0	53.5	80.6	71.2	66.0	107.2	61.5
1966	66.2	100.2	61.9	92.9	71.3	66.1	106.9	61.8
1967	68.8	101.2	67.2	94.7	72.6	68.0	102.4	66.4
1968	72.6	102.5	71.2	96.6	75.2	70.8	101.9	69.5
1969	78.6	104.6	76.3	99.3	79.2	75.2	103.1	72.9
1970	73.2	98.3	79.0	94.7	77.3	74.5	92.7	80.3
1971	74.0	92.1	79.2	89.7	82.5	80.3	93.4	86.0
1972	83.1	96.8	81.4	93.9	88.5	85.9	102.0	84.2
1973	90.7	105.0	89.8	102.1	88.8	86.4	101.0	85.5
1974	84.0	103.3	94.5	101.6	82.7	81.3	88.9	91.5
1975	77.8	88.9	91.9	89.5	87.0	87.5	84.7	103.3
1976	86.7	93.5	95.2	93.8	92.4	92.8	91.1	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.4	106.3	106.4	106.8	106.7	106.9	99.9
1979	121.4	112.2	114.2	112.6	107.8	108.2	106.3	101.7

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	33.6	55.3	42.1	37.1	69.2	53.7
1949	23.6	60.2	31.7	53.0	44.5	39.2	74.3	52.7
1950	31.2	65.5	33.3	57.3	54.5	47.6	93.8	50.8
1951	34.2	78.8	40.4	68.9	49.6	43.4	84.6	51.3
1952	39.0	91.6	42.6	78.9	49.4	42.6	91.5	46.5
1953	47.6	106.1	45.5	90.4	52.7	44.9	104.6	42.9
1954	43.7	92.3	47.2	80.8	54.1	47.3	92.5	51.1
1955	51.7	99.8	49.8	87.0	59.4	51.8	103.8	49.9
1956	44.3	97.6	53.7	86.4	51.2	45.3	82.4	55.0
1957	47.3	99.4	55.5	88.3	53.6	47.6	85.3	55.8
1958	39.1	82.9	53.5	75.6	51.7	47.1	73.1	64.5
1959	43.7	87.9	54.2	79.5	55.0	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.7	57.1	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.9	57.2	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.6	61.8	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.9	67.6	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.3	70.8	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.5	74.2	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.9	73.5	67.3	101.7	66.1
1967	73.5	108.1	79.8	101.0	72.8	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.7	77.1	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.0	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.7	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.3	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	105.7	106.5	105.8	98.4	98.6	97.8	100.8
1979	98.7	106.3	114.9	108.4	91.0	92.8	85.9	108.1

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	19.7	41.2	44.3	37.9	92.6	40.9
1949	17.8	43.5	25.6	38.6	46.0	40.9	69.4	58.9
1950	20.9	47.3	27.6	41.9	49.9	44.2	75.8	58.3
1951	25.6	57.6	31.6	50.7	50.4	44.4	81.0	54.8
1952	29.4	63.3	32.7	55.4	53.2	46.5	90.0	51.7
1953	32.0	68.9	33.8	59.9	53.5	46.5	94.9	49.0
1954	31.5	61.8	33.9	54.4	57.9	51.0	92.9	54.9
1955	33.5	62.7	36.2	55.6	60.2	53.3	92.4	57.7
1956	35.4	65.7	39.8	58.5	60.6	54.0	89.1	60.5
1957	34.4	65.8	41.1	58.8	58.4	52.2	83.6	62.5
1958	34.1	61.2	41.7	55.4	61.5	55.6	81.8	68.0
1959	38.3	66.8	43.6	60.1	63.7	57.3	87.8	65.3
1960	39.6	68.2	45.7	61.6	64.3	58.1	86.7	67.0
1961	38.6	67.3	47.3	61.4	62.7	57.3	81.6	70.2
1962	43.1	69.4	49.0	63.4	67.9	62.0	87.9	70.6
1963	45.1	69.4	51.2	64.0	70.5	65.0	88.1	73.8
1964	46.3	69.9	53.3	64.9	71.4	66.2	86.8	76.3
1965	53.4	74.2	56.1	68.7	77.7	72.0	95.2	75.6
1966	61.3	83.2	61.0	76.6	80.1	73.7	100.6	73.3
1967	63.2	85.9	65.5	79.7	79.3	73.6	96.5	76.3
1968	67.0	86.4	68.3	80.8	82.9	77.6	98.0	79.1
1969	74.4	89.5	72.4	84.1	88.5	83.2	102.9	80.9
1970	65.5	85.1	75.8	82.2	79.6	76.9	86.3	89.1
1971	66.0	79.5	77.5	78.9	83.7	83.1	85.2	97.5
1972	73.7	84.1	80.5	82.9	88.8	87.6	91.6	95.7
1973	84.2	91.4	85.8	89.6	94.0	92.2	98.2	93.9
1974	89.0	96.0	92.1	94.7	94.0	92.8	96.6	96.0
1975	84.9	87.3	92.6	89.0	95.5	97.3	91.8	106.0
1976	91.4	92.8	96.3	93.9	97.3	98.5	94.9	103.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.9	105.1	106.6	101.3	101.0	102.7	98.4
1979	112.0	113.2	109.3	112.2	99.8	99.0	102.5	96.5

PRELIMINARY: April 13, 1981

Table VII
Quarterly Indexes of Productivity
1979 III, IV and 1980
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	III	99.8	99.3	101.2	98.1
	IV	99.5	99.0	100.8	98.2
1980	I	99.1	99.3	98.7	100.6
	II	96.9	98.9	93.3	106.0
	III	96.4	99.2	91.2	108.8
	IV	95.6	98.8	89.6	110.2
Percent Change: (Annual Rate)					
1980	III	-2.0	1.5	-8.6	11.1
	IV	-3.6	-1.9	-6.8	5.3

2. Nonfinancial Corporate Business

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	III	100.9	100.3	103.2	97.2
	IV	100.5	99.7	103.2	96.5
1980	I	100.8	100.0	103.5	96.6
	II	99.8	99.8	99.9	99.9
	III	101.3	101.5	100.9	100.6
	IV	n.a.	n.a.	n.a.	n.a.
Percent Change: (Annual Rate)					
1980	III	6.1	6.9	4.0	2.8
	IV	n.a.	n.a.	n.a.	n.a.

3. Farming

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	III	106.8	110.3	103.6	106.5
	IV	105.4	105.8	105.1	100.7
1980	I	111.6	115.2	108.4	106.3
	II	116.6	123.9	110.3	112.3
	III	100.2	105.2	95.9	109.7
	IV	97.5	99.8	95.5	104.5
Percent Change: (Annual Rate)					
1980	III	-45.3	-48.0	-42.9	-9.0
	IV	-10.3	-19.1	-1.6	-17.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1979 III, IV and 1980
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

4. Manufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	III	101.0	101.3	100.2	101.1
	IV	100.8	101.4	99.2	102.3
1980	I	100.5	101.4	98.1	103.4
	II	98.0	100.4	91.8	109.4
	III	97.2	100.2	89.6	111.8
	IV	100.4	102.7	94.1	109.2
Percent Change: (Annual Rate)					
1980	III	-3.1	-0.7	-9.2	9.3
	IV	13.5	10.6	21.5	-8.9

5. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1979	III	98.7	97.7	101.0	96.8
	IV	98.5	97.6	100.8	96.8
1980	I	97.6	97.6	98.1	99.5
	II	95.4	97.0	92.9	104.4
	III	95.7	98.4	91.5	107.5
	IV	93.3	96.9	87.6	110.6
Percent Change: (Annual Rate)					
1980	III	1.4	5.8	-5.9	12.5
	IV	-9.7	-5.8	-15.9	12.0

Note: Percent changes are average annual rates of change from the previous quarter. Fourth quarter 1980 is preliminary. All series are revised to reflect the 1977 census benchmark revisions and definitional changes. (April 22, 1981).

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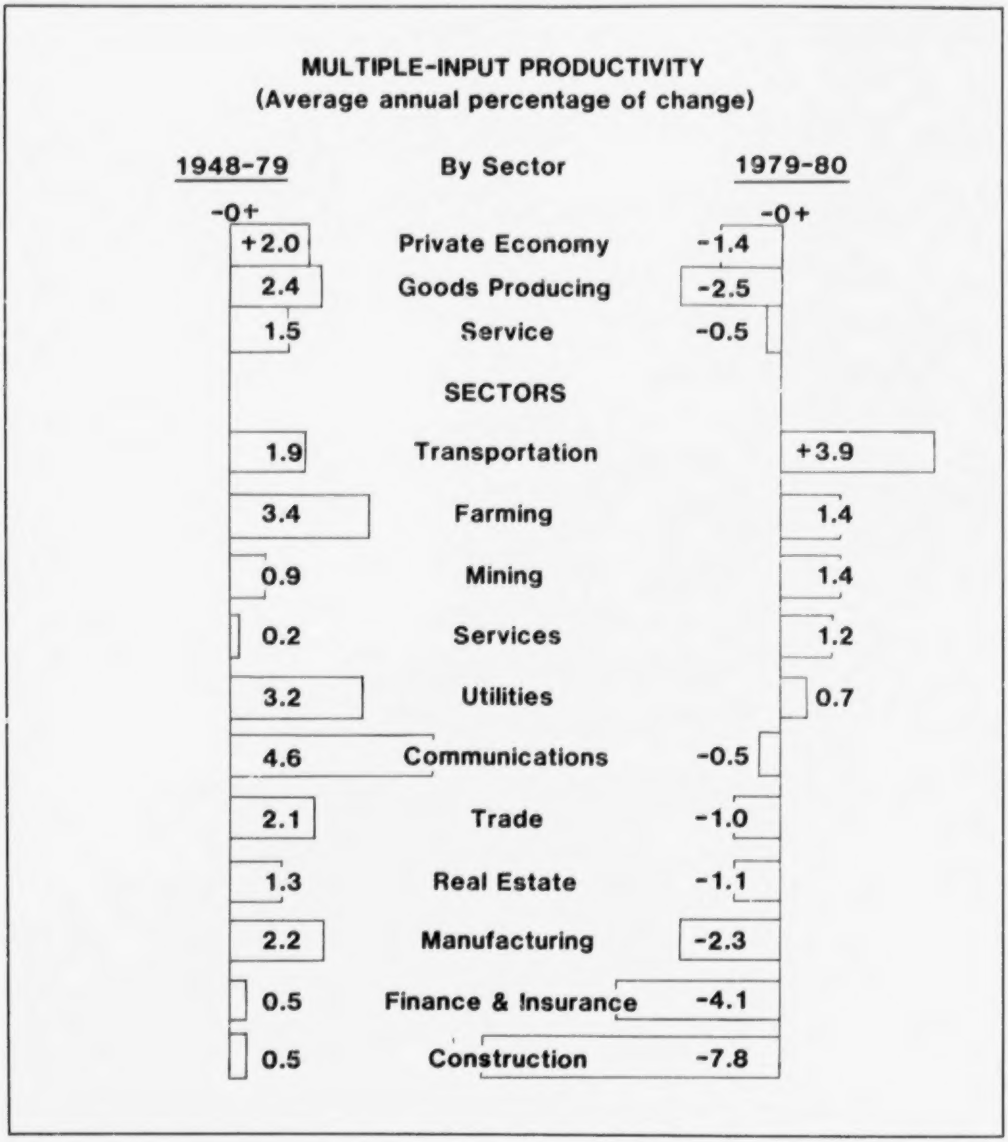
MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No. 1
June 1981



MULTIPLE-INPUT PRODUCTIVITY
(Average annual percentage of change)

AMERICAN PRODUCTIVITY CENTER
123 NORTH POST OAK LANE HOUSTON TX 77024 (713) 681 4020

TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	29.8	56.0	67.1	59.1	126.2	46.9
1949	33.5	52.9	28.4	47.4	70.6	63.2	117.7	53.7
1950	35.4	56.9	29.8	50.8	69.6	62.2	118.7	52.4
1951	46.0	70.7	34.1	62.5	73.6	65.0	135.0	48.2
1952	50.5	72.6	35.8	64.4	78.4	69.5	141.0	49.3
1953	49.3	73.5	37.3	65.4	75.5	67.1	132.3	50.7
1954	44.2	64.6	38.0	58.7	75.3	68.3	116.1	58.8
1955	45.1	67.8	39.7	61.5	73.4	66.6	113.6	58.6
1956	49.9	73.9	42.9	67.0	74.5	67.5	116.4	58.0
1957	47.1	72.7	45.0	66.5	70.8	64.8	104.6	61.9
1958	39.8	60.9	43.9	57.0	69.7	65.3	90.6	72.1
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.8	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.8	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.4	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.7	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.8	85.9	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.1	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.0	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.6	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.5	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.1	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.0	106.7	107.7	100.2	99.9	101.1	98.8
1979	115.5	114.3	116.0	114.6	100.8	101.1	99.6	101.5

PRELIMINARY: April 13, 1981

TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	50.3	89.0	45.2	40.2	79.9	50.3
1949	36.2	89.7	50.8	81.1	44.6	40.3	71.2	56.6
1950	41.1	95.0	56.0	86.3	47.6	43.2	73.4	58.9
1951	43.1	95.7	65.0	88.9	48.4	45.0	66.3	67.9
1952	44.1	93.4	72.9	88.9	49.6	47.3	60.5	78.1
1953	45.8	99.3	71.3	93.1	49.2	46.1	64.2	71.8
1954	43.9	90.6	83.0	89.1	49.3	48.5	52.9	91.6
1955	48.7	92.9	81.8	90.6	53.7	52.4	59.5	88.1
1956	49.0	93.6	89.3	92.9	52.7	52.3	54.8	95.4
1957	48.2	89.8	91.1	90.3	53.4	53.7	52.9	101.5
1958	47.4	86.1	92.2	87.7	54.1	55.1	51.4	107.2
1959	53.1	90.0	94.8	91.3	58.1	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.7	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.4	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.9	66.7	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.8	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.7	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.6	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.8	77.8	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.3	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.5	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.0	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	105.4	103.4	104.9	96.0	95.6	97.5	98.1
1979	102.4	105.7	105.7	105.5	97.1	96.9	96.9	100.0

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PREFACE

The American Productivity Center was pleased with the reception of our new multiple-input productivity index series in calendar 1980. We anticipate substantial broadening of the use of the material in 1981 as increasing numbers of persons discover how effectively the series fills prior gaps in coverage of current productivity data.

The APC is steadily improving this service, in both breadth and depth. We are pleased to inaugurate, in this first issuance of the 1981 subscription, an entirely new dimension to the series: data for selected years on levels of labor productivity (real output per hour) and of capital stock per hour (which is one of the primary determinants of both levels and trends of productivity) for sectors and for individual industries.

Many of our subscribers already know of the strong recommendations made by the General Accounting Office, the Joint Economic Committee of Congress and by the Rees Committee on the need for improving existing productivity measures. We are also well aware of the limitations in the useful interpretation of indexes relating value-added output to the weighted inputs of capital and of labor -- the so called "total factor" index pioneered by Professor John Kendrick, of which this APC multiple-input series is a variety.

Accordingly, with technical guidance and support from Dr. Kendrick, the APC has stimulated the initiation of developmental work on a total productivity index series, to complement this multiple-input series. The work is under way at Pace University, under the direction of Dr. Elliot Grossman. Funding support is provided by the APC, a Foundation, and other private sector donors. It is our hope that this new series will be ready for publication, at least for manufacturing industries, before the end of calendar 1981, and thus will be included in this subscription year.

Despite the obvious value of "macro" productivity measures of the economy, its major sectors, and industry groups, the productivity data of most direct value to industrial leaders and to other users is that which relates to specific industries, as well as to plants. Accordingly, at my request the APC will be expanding our multiple-input index service to cover additional individual industries. Since such coverage involves significant new cost, the APC will welcome grants by industry associations or individual firms to cover the modest developmental costs for these additions. Once in place, APC will continue such new series at its own expense.

C. Jackson Grayson, Jr.

INTRODUCTION

This brochure constitutes the initial issuance of the 1981 subscription for APC's multiple input productivity index series. This year's service will provide four quarterly issuances with quarterly data for the private domestic business economy; farming; manufacturing; nonfarm-nonmanufacturing; and nonfinancial corporations. Data will be presented annually for goods producing and services producing industries; the 11 major sectors of the economy; and the twenty SIC 2-digit manufacturing industry groups.

In this issuance, historical data are provided for the quarterly series as well as the annual index series, for all line items covered by the program. These indexes, for the span 1948 to date, reflect both the revisions to the 1977 Census Benchmark plus some adjustments made by BLS in the labor input series, especially in the manufacturing industries sector. Also, slight adjustments in the coverage for certain of the service industries were effected to conform the initial Kendrick approach more precisely to current sector definition used by the Bureau of Labor Statistics. Hence, the labor productivity growth rates conform to those published by the BLS.

This issuance presents the first current year figures on levels of productivity, by sector and by industry, with computations on real output per hour and capital stock per hour, for selected years. This material, which is computed from the basic data underlying the indexes of trend in the APC series, should prove of significant value to officials of industry, academia and the Government. It will also provide tangible, current information on an area of widespread academic controversy -- the relative level of productivity in goods producing versus services producing industry.

Also in this issuance, data is presented on two new manufacturing industries: iron and steel, and electronic components -- both of substantial significance in the domestic and world manufactured goods picture. The electronic components work has been funded by IBM, National Semiconductor, and Varian Associates. As funding permits, the APC will expand the provision of current productivity data for individual manufacturing industries. Subscribers interested in coverage for a specific industry are urged to contact the APC Measurement Department.

HIGHLIGHTS: RECENT PRODUCTIVITY DYNAMICS

This detailed multiple-input productivity data by individual sector and manufacturing industry, provides the base for a new and more useful analysis of productivity dynamics of the U.S. private business economy from 1948-80. However, emphasis should be on the experience of the economy as a whole in calendar 1980:

- 1980 marked the third successive year in which labor productivity for the private domestic economy declined. This is unprecedented in the Nation's productivity history.
- The declines in 1978 and 1979 appear to be the only non-recessionary period in which there has been a decline in labor productivity.
- While a further productivity loss in recession-plagued 1980 was to be expected, the prevalence and severity of losses in a majority of the individual sectors and manufacturing industry groups, coming on top of the earlier-year declines, contributed substantially to the Nation's increasing economic problem:
- Multiple-input productivity -- reflecting the weighted input of labor and capital -- dropped almost a full percentage point for the entire private domestic economy in 1978 and 1980, after no significant change in 1978.
- Capital productivity in 1980 was more than three index points below the 1977 level -- a decline averaging more than 1% per year.
- The capital/labor ratio -- which is normally a harbinger of increasing labor productivity when it rises, increased sharply (nearly 2% per year) from 1978 to 1980; but labor productivity declined each year. This fact indicates clearly the impact of the abnormal forces at work during the late 1970's. The most notable of the Nation's economic problems was undoubtedly the increasingly-severe energy crisis, as represented by the 1979-80 "second OPEC oil price shock" following the start of the Iran-Iraq war. The direct result was a world-wide recession beginning in early 1980, with a production and productivity slowdown still continuing in most industrial nations.

> An abrupt slowdown of growth in real national product was accompanied by drops in plant capacity utilization and seemingly-uncontrollable acceleration of the stagflation of the seventies, with rampant inflation and high levels of unemployment. Productivity-enhancing industrial investment which might otherwise have been made was postponed in many instances, due to market uncertainties coupled with the abnormally-high "hurdle rates" for capital investment stemming from high interest rates coupled with high prices for machinery and equipment.

While variations in trends for individual sectors and industries have underlain the averages for the economy for many years, the available date tend to indicate that the disparities in productivity experience have tended to increase during the seventies.[1]

Underlying the 1.4% decline in multiple-input productivity from 1979 to 1980 for the economy were a significant weighted-average drop (2.5%) for the goods-producing industries and a modest (0.5%) decline for the services industries. The severity of the goods-producing industries' productivity loss was highlighted by the very severe plunge (7.8%) for the construction industry, which was plagued both by the recession-reduced demand and by the effect of extremely high interest rates for home mortages as well as for construction loans.

Lowered utilization of plant capacity in manufacturing, plus the slowdown in investment for improved technology and adjustments to meet energy shortages -- including a clear substitution of labor for energy-intensive capital use -- led directly to an average drop of 2.3% in productivity for all manufacturing (a sector which normally is a leader in productivity gains). Also, agriculture, which had been the productivity-growth "star" of the 70's, recorded only a modest 1.4% rise in 1980 -- less than half of its average gain for the full 1948-79 span.

---

[1] A special issue of "Business Week," June 1, 1981, "America's Re-structured Economy" presents the thesis that there are now five distinctly-separate economies in the U.S., where one was before, including: 1) Old-line industry; 2) Energy; 3) High technology; 4) Agriculture; and 5) Services.

The only significant multiple-input productivity gain in 1980 was recorded by the transportation sector (3.9%). Public utilities (a leading gainer, 1948-79) increased only 0.7% in 1980; and the communications sector, the most rapid gainer during the past two decades, experienced a decline of 0.5% in 1980.

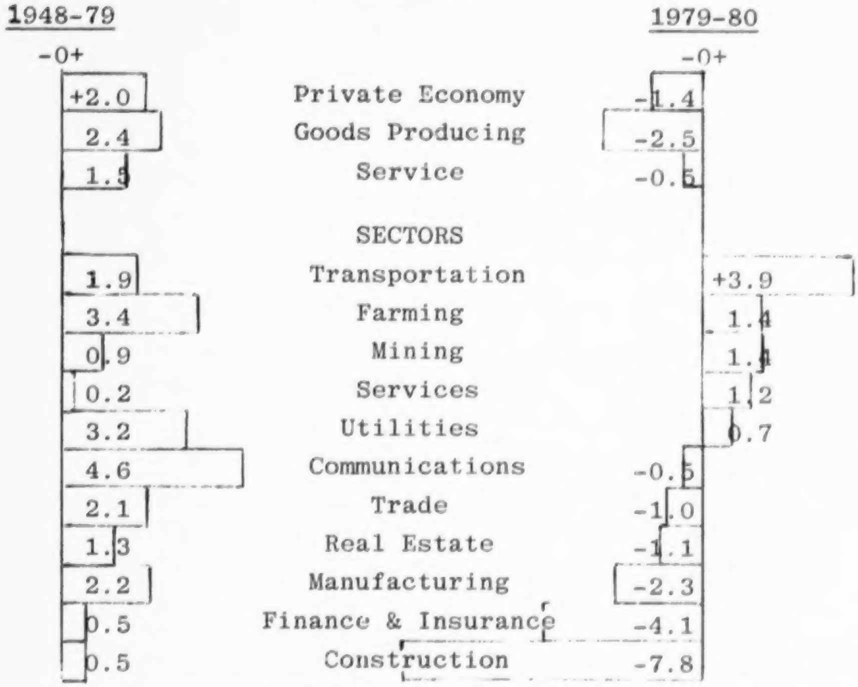
Digging still deeper, the 2.3% average drop in multiple-input productivity for all manufacturing was a composite which included a total of 13 industry-group productivity losses in 1980. Ten of these declines were in excess of 2.5%, ranging up to 7.4% for the major primary metals and transportation equipment industry groups -- both of which were plagued by declining demand and loss of markets to overseas producers. One industry showed no change, and six industry groups recorded productivity gains. Gaining groups tended to be those focused primarily on the domestic market such as food and tobacco. (See Chart 1).

In general, a similar pattern of underlying divergence of trends between sectors and industry groups emerged in the labor productivity series. However, the average productivity decline for the private business economy (0.3%) was less than in the multiple-input measure that reflects capital as well as labor input. Similarly, the losses for sectors and manufacturing industry groups were generally less severe (except for the distressed construction sector); and there were somewhat more significant increases -- ranging up to the 5.0% for the transportation sector.

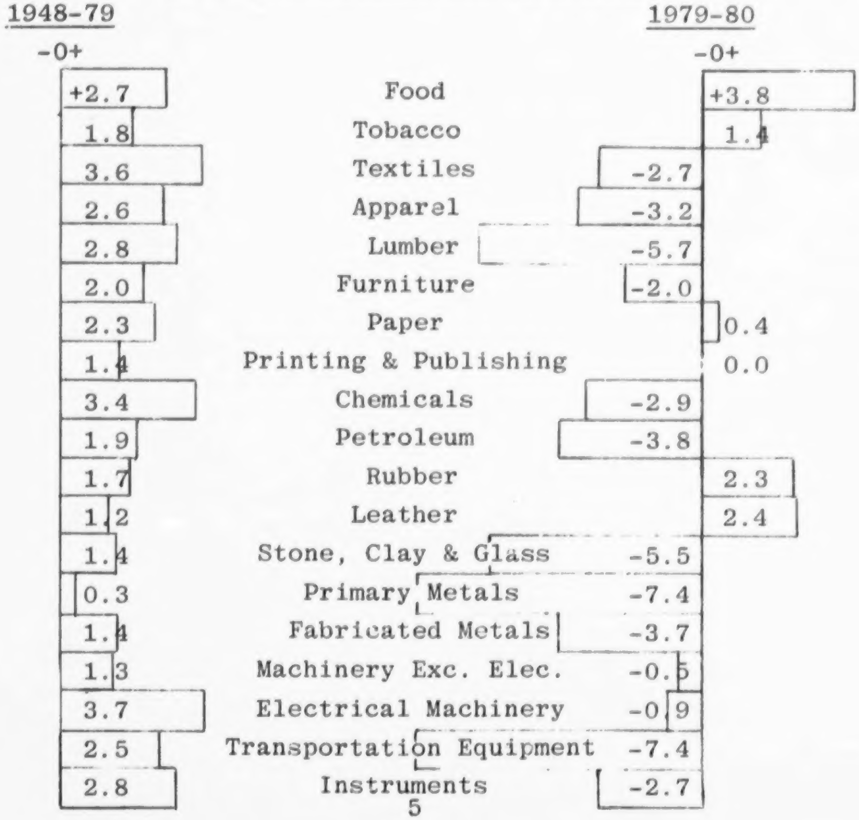
Of the twenty manufacturing industry groups; eight recorded gains (to 5.2% for petroleum); one showed no change; and eleven recorded productivity losses (to 4.0% for the large primary metals group).

MULTIPLE-INPUT PRODUCTIVITY
(Average annual percentage of change)

By Sector



By Manufacturing Industry Group



SPECIAL FEATURE

New Data on Levels of Productivity and Capital Stock Per Hour

The American Productivity Center is now providing for selected years, data on real GDP per hour for the economy and the several sectors thereof. In addition, both levels and growth rates of real capital stock per hour are shown for the same years. The years selected for this presentation are those which have been noted by Kendrick, Cox, Jorgenson and others as "swing years" in productivity growth analysis:[1]

1948:	The beginning of the "post World War II era"; and the initial year in the APC multiple-input index series;
1965:	The terminal year of the post-war "golden period" of rapid productivity growth;
1973:	The year of the "OPEC oil shock" which triggered the world-wide recession and the complete productivity-growth collapse of the 1970's; and
1980:	The most recent year for which annual data are available; also the beginning year of the third recession in a single decade; and the third successive year in which labor productivity declined -- for the first time in our history

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[1] The APC could provide comparable data on levels for other years on request. Reasonably accurate estimates can be made by applying the relevant trend indexes to the key-year levels and interpolating.

Levels of Labor Productivity by Sector

Figure 1 presents a revealing indication of the variations in levels of labor productivity for the different sectors of the economy, especially when set in context of the share of hours of labor input for the sector, as a percent of the total private business economy:

Figure 1: Output Per Hour and Shares
of Total Hours, by Sector, 1948 and 1980

Sector	Share of total Hours (%)		Real GDP[1] Per Hour($)	
	1948	1980	1948	1980
Private business economy	100.0	100.0	3.48	7.49
Private goods industries:	54.3	40.8	2.93	7.37
Agriculture	18.3	4.3	1.13	5.17
Mining	1.9	1.5	5.32	9.54
Construction	5.1	7.0	4.49	4.94
Manufacturing	29.0	28.0	3.65	8.20
Private services industries;	45.7	59.2	4.12	7.57
Transportation	6.5	4.4	4.11	8.39
Communications	1.6	1.8	3.11	18.53
Public Utilities	1.1	1.2	4.50	19.87
Trade	22.9	25.6	2.97	6.32
Finance & Insurance	2.7	5.4	5.61	7.43
Real Estate	0.9	1.6	24.10	26.69
Services	10.0	19.1	4.63	5.65

Contrary to the frequently-cited "fact" that the productivity for the total economy has been lowered by the shift of hours and employment to the service industries, productivity (real GDP per hour) for the services industries was higher than for the goods-producing industries in 1948; and is still higher in 1980, though average growth-rates for the services have not been as rapid as in goods-producing industries. Three of the services industries sectors (communication, public utilities, and real estate) have actual 1980 levels of productivity far higher than that of any sector in the goods-producing industries.

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[1] Constant (1972) dollars.

The two sectors with the lowest actual level of productivity in 1980 were in the goods-producing group: construction and agriculture. Even the lowest-productivity services sector (professional, health and medical, educational, residential and other services) ranked above agriculture and construction. Mining, despite its truly dismal productivity growth rates from 1965 to date, had the highest level of productivity of all the goods-producing industries, in both 1948 and 1980. The manufacturing sector, frequently cited as the "productivity leader" among all the sectors, ranked in 1980 only sixth among all sectors in its productivity level. At $8.20 per hour, its productivity exceeded only the five lowest-ranking sectors: construction, agriculture, trade, finance/insurance and "other services."

Capital Stock Per Hour, By Sector

Productivity experts agree that the relative input of capital stock per employee (or per employee hour) is a major determinant (perhaps the major determinant) of levels of productivity, but quantitative data on the capital/labor relationship have remained sparse, and generally not up to date.

The APC Multiple-Input Productivity Index service now provides "real" (1972 constant dollar) capital stock per hour, for each of the major sectors of the industry, for the "key years" identified above. Capital stock per hour more than doubled between 1948 and 1980 for the private business economy and for the total private goods industries group, but increased less than three-fourths for the total private services group -- despite the extremely-rapid growth in capital stock per hour in the communications and public utilities industries. Highest capital stock growth rates were recorded by communications and agriculture at 4.9%/year.

The levels of capital stock per hour showed extremely high deviations throughout the entire post-war period, with a larger absolute range in 1980 than in the initial year 1948. The sectors with the highest 1980 capital stock per hour were public utilities, mining, communications and (perhaps surprisingly) agriculture. Capital stock per hour in manufacturing (which many observers assume to be relatively high) is in fact comparatively low at $15.57 per hour in 1980. This figure is above only the finance/insurance, trade, and construction sectors. Capital stock per hour in manufacturing is less than 10% of the level for the public utilities sector; and just over one-fourth the levels for the mining and agriculture.

Figure 2: Capital Stock per Hour by Sector, 1948 and 1980

	Real (1972$) Capital Stock per Hour		
Sector	$ 1948	$ 1980	Growth rate: 1948-1980 (%/yr)
Private Business Economy	11.83	23.66	2.2
Total Private Goods	8.83	19.49	2.5
Manufacturing	7.03	15.57	2.5
Mining	22.76	59.86	.
Construction	1.68	3.80	2.6
Agriculture	12.30	57.65	4.9
Total Private Service	15.38	26.45	1.7
Transportation	16.57	31.26	2.0
Communications	11.36	52.37	4.9
Public Utilities	49.45	159.58	3.7
Trade	2.75	8.61	3.6
Finance & Insurance	3.95	14.29	4.1
Services	15.51	24.35	1.4
Real Estate[1]			

This data when added to productivity data provides support to the basic thesis that growth in capital stock per hour supports productivity growth. There also, however, appears to be evidence that other factors are influencing the pace of productivity growth and decline for particular sectors and manufacturing industry groups, over-riding in some instances the otherwise-favorable impact of the investment per hour ratio. In 1948-80, growth rates of capital stock per hour and output per hour formed a definite correlation for the manufacturing industry groups, with the productivity gain sharper than the capital stock per hour gain in most instances. This pattern broke down badly, however, during recession and inflation-plagued 1973-80, with deviations from a correlation almost more marked than the correlation tendency. (Figures 3-6, inclusive).

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[1] Capital stock per hour not technically comparable.

GROWTH RATE CORRELATIONS

Capital Stock/Hour and Labor Productivity
(Average annual percentage of change)

Chart 3
Sectors (1948-80)

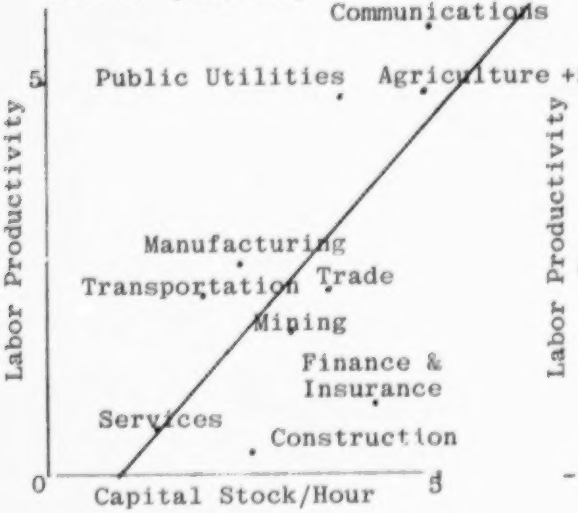


Chart 4
Sectors (1973-80)

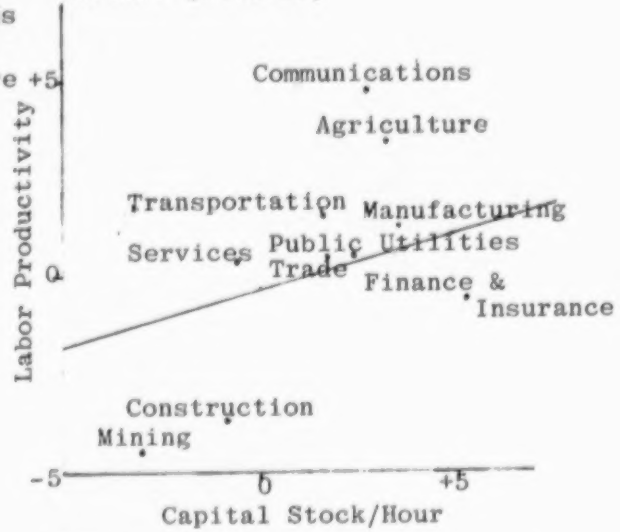


Chart 5
Manufacturing Industries (1948-80)

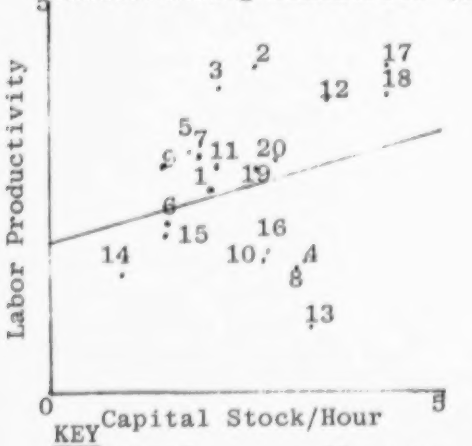
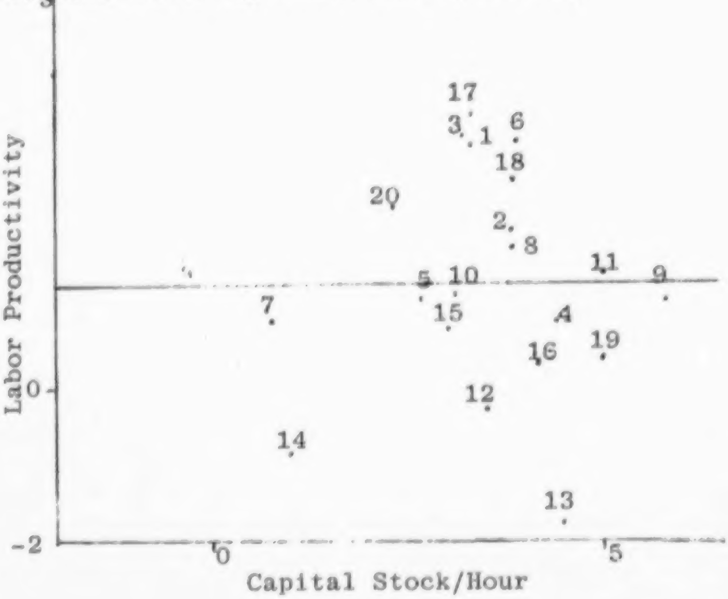


Chart 6
Manufacturing Industries (1973-80)



KEY
1 apparel
2 chemicals
3 electrical machinery
4 fabricated metals
5 food
6 furniture
7 intruments
8 leather
9 lumber
10 machinery, exc. electrical
11 paper
12 petroleum
13 primary metals
14 printing & publishing
15 rubber
16 stone, clay & glass
17 textiles
18 tobacco
19 transportation equipment
20 misc. manufactures

Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

1. Multiple-Input Productivity

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.5
Service Producing Sector	1.5	1.8	1.4	0.5	-0.5
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing Industry	2.2	2.6	2.3	0.8	-2.3
Nonfarm Nonmanufacturing Industry	1.3	1.9	1.1	0.1	-0.9
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

2. Labor Productivity
(Output per hour worked)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-1.2
Service Producing Sector	2.0	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing Industry	2.7	3.0	2.8	1.5	-0.5
Nonfarm Nonmanufacturing Industry	1.8	2.4	1.8	0.2	-0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

3. Capital Productivity
(Output per unit of capital input)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.8
Service Producing Sector	0.3	0.5	-0.2	0.1	-1.9
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing Industry	0.3	0.9	0.3	-1.5	-7.2
Nonfarm Nonmanufacturing Industry	0.1	0.4	-0.4	-0.3	-2.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

May 22, 1981

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.5%	3.6%	3.9%	2.7%	-0.8%
Goods Producing Sector	3.2	3.6	3.3	1.7	-4.2
Service Producing Sector	3.7	3.6	4.3	3.4	1.6
Farming	1.1	0.9	0.9	2.0	1.3
Manufacturing Industry	3.6	4.0	4.1	2.1	-4.6
Nonfarm Nonmanufacturing Industry	3.6	3.6	3.9	3.0	0.9
Nonfinancial Corporate Business	4.4	4.6	5.0	3.0	-0.7
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	-0.5%
Goods Producing Sector	0.1	-0.4	0.6	0.8	-3.1
Service Producing	1.7	1.2	2.1	2.7	1.3
Farming	-3.6	-4.2	-3.9	-1.6	-2.3
Manufacturing Industry	1.0	1.0	1.2	0.6	-4.1
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.1
Nonfinancial Corporate Business	1.9	1.5	2.8	2.0	-1.2

May 22, 1981

Table II (Cont d)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	2.9%
Goods Producing Sector	2.5	2.4	2.5	2.9	1.8
Service Producing Sector	3.5	3.1	4.5	3.3	3.5
Farming	1.2	1.2	0.9	1.4	1.8
Manufacturing Industry	3.3	3.1	3.7	3.6	2.8
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.1
Nonfinancial Corporate Business	3.9	3.7	5.1	2.7	0.4
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.0
Service Producing Sector	1.7	1.8	2.3	0.6	2.2
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing Industry	2.4	2.1	2.5	3.1	7.2
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.5	1.9
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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Table III a.

Multiple-Input Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.5
Service Producing Sector	1.5	1.8	1.4	0.5	-0.5
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing	2.2	2.6	2.3	0.8	-2.3
Food	2.7	2.9	4.1	0.0	3.8
Tobacco	1.8	2.3	2.1	0.3	1.4
Textiles	3.6	3.9	3.0	3.7	-2.7
Apparel	2.6	2.0	3.0	3.8	-3.2
Lumber	2.8	4.5	1.2	0.2	-5.7
Furniture	2.0	2.1	0.8	3.3	-2.0
Paper	2.3	2.2	4.0	0.0	0.4
Printing & Publishing	1.4	2.4	1.0	-1.1	0.0
Chemicals	3.4	3.9	4.2	1.1	-2.9
Petroleum	1.9	3.4	2.0	-2.3	-3.8
Rubber	1.7	2.3	2.0	-0.3	2.3
Leather	1.2	1.0	1.8	1.0	2.4
Stone, Clay & Glass	1.4	2.0	0.9	0.1	-5.5
Primary Metals	0.3	0.9	0.9	-1.9	-7.4
Fabricated Metals	1.4	1.7	1.3	0.6	-3.7
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	-0.5
Electrical Machinery	3.7	4.3	2.8	3.2	-0.9
Transportation Equipment	2.5	3.4	2.3	0.3	-7.4
Instruments	2.8	3.5	2.4	1.1	-2.7
Miscellaneous Manufac.	2.6	2.3	3.6	2.0	1.4
Nonfarm Nonmanufacturing	1.3	1.9	1.1	0.1	-0.9
Mining	0.9	2.3	1.7	-4.0	1.4
Construction	0.5	2.4	-1.0	-3.1	-7.8
Transportation	1.9	2.0	2.4	0.9	3.9
Railroad	2.8	4.2	1.2	0.7	4.6
Nonrail	1.1	0.5	2.7	0.9	3.3
Communications	4.6	5.4	3.2	4.3	-0.5
Public Utilities	3.2	5.6	1.5	-0.9	0.7
Trade	2.1	2.4	2.6	0.5	-1.0
Finance & Insurance	0.5	1.1	0.5	-0.9	-4.1
Real Estate	1.3	1.9	0.0	1.2	-1.1
Services	0.2	0.3	-0.1	0.2	1.2
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

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Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-1.2
Service Producing Sector	2.0	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing	2.7	3.0	2.8	1.5	-0.5
Food	3.1	3.2	4.6	0.7	4.5
Tobacco	3.7	4.0	4.0	2.6	3.0
Textiles	4.4	5.0	3.3	4.4	-1.9
Apparel	2.8	2.0	3.3	4.2	-3.0
Lumber	3.1	4.3	1.8	1.6	-1.9
Furniture	2.2	2.1	1.1	3.8	-0.9
Paper	2.8	2.5	4.5	1.3	2.9
Printing & Publishing	1.5	2.4	1.5	-0.9	-0.1
Chemicals	4.3	4.8	4.8	2.5	-1.3
Petroleum	3.6	5.5	3.3	-1.2	5.2
Rubber	1.9	2.5	2.2	0.1	4.2
Leather	1.5	1.2	2.2	1.5	3.2
Stone, Clay & Glass	1.9	2.6	1.2	0.9	-3.0
Primary Metals	0.9	1.5	1.5	-1.3	-4.0
Fabricated Metals	1.8	2.1	1.5	1.3	-2.2
Machinery, exc. Elec.	1.7	1.7	2.0	1.4	0.6
Electrical Machinery	4.1	4.5	3.4	3.8	0.0
Transportation Equipment	3.0	3.6	3.1	1.0	-3.0
Instruments	3.2	3.8	3.1	1.3	-2.1
Miscellaneous Manufac.	3.0	2.8	4.0	2.2	3.1
Nonfarm Nonmanufacturing	1.8	2.4	1.8	0.2	-0.2
Mining	1.9	4.3	2.4	-5.2	0.1
Construction	0.6	2.6	-0.9	-3.1	-7.9
Transportation	2.2	2.3	2.6	1.1	5.0
Railroad	3.3	4.8	1.7	1.1	6.3
Nonrail	1.5	0.8	3.2	1.3	4.3
Communications	5.9	6.5	4.8	5.7	0.2
Public Utilities	4.9	6.9	3.8	0.6	1.4
Trade	2.5	2.8	3.2	0.8	-0.3
Finance & Insurance	1.1	1.3	1.2	-0.2	-3.1
Real Estate	0.4	1.2	0.1	-1.4	-2.5
Services	0.6	0.9	0.4	0.1	3.1
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

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Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.8
Service Producing Sector	0.3	0.5	-0.1	0.1	-1.9
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing	0.3	0.9	0.3	-1.5	-7.2
Food	1.4	2.1	2.5	-2.0	1.9
Tobacco	-0.9	-1.4	0.4	-1.3	0.4
Textiles	-0.3	-1.6	1.5	1.2	-5.3
Apparel	0.6	1.3	-0.9	0.6	-4.6
Lumber	1.9	5.2	-1.4	-3.0	-12.8
Furniture	0.8	2.0	-1.2	0.3	-6.9
Paper	0.9	1.5	2.5	-3.1	-4.5
Printing & Publishing	0.6	2.6	-1.7	-2.1	0.2
Chemicals	1.7	2.2	3.1	-1.2	-5.3
Petroleum	0.5	1.5	0.9	-2.9	-8.1
Rubber	0.6	1.3	1.0	-2.0	-3.7
Leather	-1.5	-0.7	-3.0	-1.8	-2.3
Stone, Clay & Glass	-0.5	-0.1	-0.1	-2.4	-11.8
Primary Metals	-2.0	-1.7	-1.0	-4.0	-16.6
Fabricated Metals	-1.2	-1.2	-0.3	-2.4	-9.9
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.4	-4.0
Electrical Machinery	1.9	3.5	-0.7	0.9	-4.7
Transportation Equipment	0.9	2.8	-1.0	-1.9	-17.9
Instruments	1.2	1.8	0.4	0.7	-3.9
Miscellaneous Manufac.	0.4	-0.6	2.0	1.1	-5.9
Nonfarm Nonmanufacturing	0.1	0.5	-0.4	-0.3	-1.9
Mining	-1.3	-2.0	0.7	-2.3	3.5
Construction	-2.1	-1.7	-2.9	-2.3	-6.6
Transportation	0.3	-0.1	1.3	0.0	-0.4
Railroad	-0.6	-0.3	-1.1	-0.8	-1.1
Nonrail	-0.9	-1.4	0.0	-0.8	-0.7
Communications	0.8	0.3	0.8	2.5	-1.2
Public Utilities	1.0	2.8	-0.5	-2.0	0.3
Trade	-1.0	-0.9	-1.5	-0.9	-4.3
Finance & Insurance	-2.9	-1.4	-4.6	-4.9	-8.4
Real Estate	1.4	2.0	0.0	1.5	-0.9
Services	-0.8	-1.2	-1.0	0.6	1.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

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Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.0
Service Producing Sector	1.7	1.8	2.3	0.6	2.2
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.1	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.7	2.5
Tobacco	4.7	5.5	3.7	4.0	2.7
Textiles	4.7	6.7	1.8	3.2	3.6
Apparel	2.1	0.6	4.2	3.6	1.7
Lumber	1.2	-0.9	3.2	4.7	12.7
Furniture	1.3	0.1	2.4	3.5	6.4
Paper	1.9	1.0	2.0	4.5	7.8
Printing & Publishing	0.9	-0.2	3.3	1.2	-0.3
Chemicals	2.5	2.5	1.7	3.7	4.3
Petroleum	3.1	4.0	2.4	1.8	14.5
Rubber	1.2	1.1	1.2	2.2	8.2
Leather	3.0	1.9	5.3	3.4	5.6
Stone, Clay & Glass	2.4	2.7	1.3	3.3	9.9
Primary Metals	3.0	3.2	2.5	2.8	15.1
Fabricated Metals	3.0	3.4	1.8	3.7	8.6
Machinery, exc. Elec.	2.6	2.4	3.1	2.8	4.8
Electrical Machinery	2.1	0.9	4.2	2.9	4.9
Transportation Equipment	2.1	0.8	4.2	3.0	18.2
Instruments	1.9	2.0	2.7	0.6	1.8
Miscellaneous Manufac.	2.6	3.5	2.0	1.1	9.6
Nonfarm Nonmanufacturing	1.7	1.9	2.2	0.5	1.9
Mining	3.3	6.3	1.7	-3.0	-3.2
Construction	2.7	4.3	2.0	-0.8	-1.4
Transportation	1.9	2.4	1.3	1.2	5.4
Railroad	3.9	5.1	2.9	2.0	7.5
Nonrail	2.4	2.2	3.2	2.1	5.0
Communications	5.0	6.2	3.9	3.2	1.4
Public Utilities	3.8	4.0	4.3	2.7	1.1
Trade	3.6	4.0	4.4	1.5	4.2
Finance & Insurance	4.0	2.8	6.1	5.0	5.8
Real Estate	-0.9	-0.7	0.1	-2.9	-1.6
Services	1.5	2.1	1.5	-0.5	0.2
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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Table III e.
Multiple-Input Productivity

SPECIAL INDUSTRY ESTIMATES

(Selected Periods,1958-80)

1. S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

	Average Annual Rates of Change				
	1958-79	1958-65	1965-73	1973-79	1979-80
Output	1.9	6.1	1.1	-1.7	-17.6
Labor Hours	0.1	2.4	-0.9	-1.3	-0.8
Capital Input*	1.1	1.3	1.7	0.1	-1.3
Multi-Input Productivity	1.3	4.2	0.7	-1.3	-15.9
Output per Unit Labor	1.9	3.6	2.0	-0.4	-17.0
Output per Unit Capital	0.8	4.7	-0.6	-1.7	-16.5
Capital-Labor Ratio	1.0	-1.0	2.6	1.3	-0.5

2. S.I.C. 367 - ELECTRONIC COMPONENTS

	Average Annual Rates of Change				
	1958-79	1958-65	1965-73	1973-79	1979-80
Output	10.9	13.3	9.9	9.5	3.0
Labor Hours	5.1	8.4	3.6	3.3	5.3
Capital Input*	9.6	12.3	9.4	6.8	8.1
Multi-Input Productivity	4.1	3.6	4.4	4.4	-3.5
Output per Unit Labor	5.5	4.4	6.2	6.0	-2.3
Output per Unit Capital	1.2	0.9	0.5	2.6	-4.7
Capital-Labor Ratio	4.2	3.5	5.6	3.3	2.7

*Capital not necessarily consistent with 2-digit S.I.C. code industry estimates.
Sources: Dept. of Commerce; Dept. of Labor

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.9	41.5	68.3	54.5	46.0	89.8	51.2
1949	36.5	78.3	42.2	66.7	54.7	46.7	86.6	53.9
1950	39.9	79.2	43.6	67.8	58.8	50.3	91.5	55.0
1951	42.2	81.5	45.0	69.8	60.4	51.7	93.6	55.3
1952	43.6	81.6	46.2	70.2	62.0	53.4	94.4	56.6
1953	45.4	82.4	47.2	71.1	63.9	55.1	96.3	57.3
1954	44.6	79.7	48.2	69.6	64.1	56.0	92.6	60.5
1955	48.2	82.7	49.9	72.2	66.7	58.2	96.5	60.4
1956	49.4	84.0	51.4	73.5	67.2	58.8	96.1	61.2
1957	49.9	82.7	52.9	73.1	68.2	60.3	94.4	63.9
1958	49.1	79.0	53.9	70.9	69.3	62.2	91.2	68.2
1959	51.8	82.1	55.4	73.5	70.5	63.1	93.6	67.5
1960	53.6	82.3	56.8	74.1	72.3	65.1	94.2	69.1
1961	54.5	81.0	58.2	73.7	73.9	67.2	93.6	71.9
1962	57.5	82.3	60.0	75.1	76.5	69.8	95.8	72.9
1963	60.0	82.8	61.8	76.1	78.9	72.4	97.1	74.6
1964	63.6	84.2	64.0	77.7	81.8	75.5	99.4	76.0
1965	67.9	86.8	66.5	80.3	84.6	78.2	102.1	76.6
1966	71.6	88.9	69.4	82.6	86.7	80.6	103.2	78.1
1967	73.2	88.8	72.1	83.4	87.8	82.4	101.6	81.1
1968	76.9	90.3	74.8	85.4	90.2	85.2	102.9	82.8
1969	79.2	92.7	77.8	87.9	90.0	85.4	101.8	83.9
1970	78.5	91.2	80.3	87.7	89.6	86.1	97.8	88.0
1971	80.9	90.7	82.7	88.1	91.8	89.2	97.7	91.3
1972	86.2	93.4	85.6	90.9	94.9	92.4	100.8	91.7
1973	92.0	97.0	89.2	94.5	97.3	94.8	103.1	92.0
1974	90.2	97.4	92.3	95.7	94.3	92.7	97.8	94.7
1975	88.5	93.4	94.2	93.6	94.5	94.8	94.0	100.9
1976	94.1	96.1	96.8	96.3	97.7	97.9	97.2	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.9	103.7	104.5	100.2	99.8	101.0	98.8
1979	107.7	108.4	107.3	108.0	99.7	99.4	100.3	99.1
1980	106.8	107.8	110.5	108.6	98.3	99.1	96.7	102.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	41.1	104.5	49.4	86.2	47.7	39.3	83.3	47.3
1949	39.3	98.6	49.9	82.7	47.4	39.8	78.7	50.6
1950	44.0	100.6	51.7	84.7	52.0	43.8	85.2	51.4
1951	48.1	104.2	54.1	88.0	54.6	46.1	88.8	52.0
1952	49.5	103.7	55.8	88.3	56.1	47.8	88.7	53.8
1953	52.4	104.3	57.0	89.2	58.8	50.3	91.9	54.7
1954	50.1	97.6	58.0	85.3	58.7	51.3	86.5	59.4
1955	54.7	102.0	60.1	89.0	61.5	53.6	91.0	59.0
1956	55.7	102.5	62.0	90.1	61.8	54.3	89.8	60.5
1957	55.7	99.2	63.5	88.6	62.9	56.2	87.7	64.1
1958	52.7	91.7	64.3	84.1	62.7	57.5	82.1	70.1
1959	57.3	96.1	65.8	87.5	65.5	59.7	87.1	68.5
1960	58.0	94.8	66.9	86.9	66.7	61.1	86.7	70.6
1961	58.1	91.9	67.8	85.2	68.2	63.2	85.7	73.8
1962	61.9	93.8	69.2	86.9	71.2	65.9	89.5	73.7
1963	66.0	93.9	70.5	87.4	75.6	70.3	93.7	75.0
1964	69.8	94.6	72.2	88.4	78.9	73.7	96.6	76.3
1965	75.1	98.2	74.3	91.6	82.0	76.5	101.1	75.6
1966	79.1	101.3	77.1	94.6	83.6	78.1	102.5	76.1
1967	79.1	100.0	79.8	94.4	83.7	79.1	99.1	79.8
1968	83.0	100.8	81.8	95.6	86.8	82.3	101.4	81.2
1969	85.0	102.4	83.9	97.4	87.3	83.0	101.3	81.9
1970	81.4	97.2	85.4	94.0	86.6	83.7	95.3	87.9
1971	83.9	94.7	86.5	92.5	90.8	88.7	97.1	91.4
1972	90.0	98.4	88.0	95.5	94.2	91.5	102.3	89.4
1973	97.5	102.8	90.5	99.4	98.1	94.9	107.8	88.1
1974	93.0	101.5	93.5	99.3	93.6	91.6	99.5	92.1
1975	87.3	92.7	95.0	93.3	93.5	94.1	91.9	102.5
1976	94.3	95.9	97.2	96.3	97.9	98.2	96.9	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	105.2	103.4	104.7	100.3	99.8	101.5	98.3
1979	108.0	107.9	107.2	107.7	100.2	100.0	100.7	99.3
1980	103.4	104.6	109.1	105.8	97.8	98.9	94.8	104.3

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productiv[illegible]	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.5	63.9	37.4	54.2	63.[illegible]	54.0	92.2	58.5
1949	34.6	63.5	38.2	54.2	63.8	54.4	90.6	60.1
1950	36.9	63.7	39.4	54.7	67.5	58.0	93.7	61.9
1951	38.0	65.0	40.3	55.9	67.9	58.4	94.2	62.0
1952	39.3	65.5	41.2	56.5	69.6	60.0	95.6	62.8
1953	40.5	66.6	42.1	57.5	70.4	60.8	96.1	63.3
1954	40.7	66.7	43.2	58.0	70.3	61.1	94.4	64.7
1955	43.5	68.7	44.6	59.8	72.8	63.3	97.5	65.0
1956	45.0	70.5	45.9	61.4	73.3	63.8	97.9	65.2
1957	45.8	70.8	47.3	62.0	73.8	64.7	96.7	66.9
1958	46.5	69.8	48.5	61.7	75.4	66.7	96.0	69.5
1959	48.0	72.0	50.0	63.6	75.4	66.6	95.9	69.5
1960	50.4	73.2	51.6	65.0	77.6	68.9	97.6	70.6
1961	51.9	73.1	53.2	65.6	79.1	71.0	97.4	72.8
1962	54.4	74.0	55.3	66.9	81.3	73.5	98.4	74.7
1963	55.7	74.8	57.3	68.2	81.7	74.5	97.1	76.7
1964	59.2	76.6	59.7	70.2	84.3	77.3	99.1	77.9
1965	62.8	78.6	62.5	72.5	86.7	79.9	100.5	79.5
1966	66.4	79.8	65.4	74.4	89.2	83.1	101.4	82.0
1967	69.1	80.7	68.1	75.9	91.0	85.6	101.5	84.3
1968	72.7	82.7	71.2	78.4	92.7	87.8	102.1	86.0
1969	75.0	85.7	74.6	81.5	92.0	87.5	100.5	87.1
1970	76.5	86.8	77.6	83.3	91.8	88.1	98.5	89.4
1971	78.7	87.7	80.8	85.1	92.5	89.7	97.4	92.1
1972	83.5	89.7	84.3	87.7	95.3	93.1	99.1	94.0
1973	88.0	92.8	88.5	91.1	96.5	94.8	99.4	95.4
1974	88.3	94.4	91.6	93.3	94.6	93.5	96.3	97.1
1975	89.4	93.8	93.7	93.8	95.3	95.2	95.3	99.9
1976	94.0	96.2	96.6	96.4	97.5	97.7	97.3	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.8	104.4	100.1	99.8	100.7	99.1
1979	107.5	108.7	107.4	108.2	99.3	98.9	100.1	98.8
1980	109.2	110.0	111.2	110.5	98.8	99.2	98.2	101.0

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input*	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.8	60.2	32.6	52.3	55.0	47.8	88.2	54.2
1949	27.5	56.6	33.3	50.0	55.1	48.6	82.7	58.8
1950	30.9	59.3	34.6	52.3	59.2	52.2	89.5	58.3
1951	33.8	63.0	36.3	55.4	61.0	53.6	93.2	57.5
1952	34.4	63.9	37.5	56.4	61.0	53.9	91.9	58.7
1953	36.5	65.7	38.7	58.1	62.9	55.6	94.4	58.9
1954	35.4	62.1	39.6	55.8	63.5	57.1	89.5	63.8
1955	39.5	65.1	41.2	58.4	67.6	60.6	95.8	63.3
1956	40.5	66.6	42.9	59.9	67.6	60.9	94.5	64.4
1957	41.1	65.8	44.2	59.8	68.6	62.4	92.8	67.2
1958	39.2	62.9	44.9	57.9	67.7	62.4	87.4	71.4
1959	43.5	66.8	46.1	61.1	71.2	65.1	94.3	69.0
1960	44.9	67.6	47.4	62.0	72.3	66.3	94.6	70.1
1961	46.0	67.0	48.6	61.9	74.3	68.6	94.6	72.5
1962	50.0	69.6	51.3	64.6	77.5	71.8	97.6	73.6
1963	53.3	71.3	53.7	66.4	80.3	74.8	99.3	75.4
1964	57.0	73.6	56.7	68.9	82.7	77.5	100.6	77.1
1965	62.0	77.5	60.6	72.9	85.0	79.9	102.3	78.1
1966	66.4	81.8	66.4	77.6	85.6	81.2	100.1	81.1
1967	68.0	82.9	70.7	79.6	85.4	82.0	96.1	85.3
1968	72.4	85.5	74.5	82.6	87.7	84.8	97.2	87.2
1969	75.6	88.9	78.4	86.1	87.8	85.0	96.4	88.2
1970	75.0	87.9	81.1	86.1	87.1	85.4	92.5	92.3
1971	78.4	87.7	83.4	86.6	90.6	89.4	94.1	95.0
1972	84.9	92.2	86.8	90.7	93.5	92.1	97.8	94.2
1973	91.6	96.9	90.3	95.2	96.2	94.5	101.4	93.2
1974	88.6	97.1	92.5	95.9	92.4	91.3	95.8	95.3
1975	86.9	92.0	92.7	92.2	94.2	94.4	93.7	100.8
1976	93.3	95.8	95.8	95.8	97.4	97.4	97.4	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.9	100.8	100.4	101.8	98.6
1979	109.3	109.0	105.9	108.2	101.1	100.3	103.2	97.2
1980	108.5	107.7	106.3	107.3	101.1	100.8	102.1	98.7

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.7	312.2	72.9	206.7	36.6	24.3	103.8	23.4
1949	74.4	309.5	73.4	205.4	36.2	24.0	101.4	23.7
1950	78.5	286.4	75.4	193.3	40.6	27.4	104.1	26.3
1951	74.6	271.3	76.7	185.4	40.2	27.5	97.3	28.3
1952	76.5	258.1	78.0	178.6	42.8	29.6	98.0	30.2
1953	80.5	238.8	78.5	168.0	47.9	33.7	102.5	32.9
1954	82.4	232.0	79.3	164.5	50.1	35.5	103.9	34.2
1955	84.9	235.9	81.6	167.6	50.6	36.0	104.1	34.6
1956	83.7	224.6	82.1	161.5	51.8	37.3	102.0	36.5
1957	81.5	206.6	83.2	151.9	53.6	39.4	97.9	40.3
1958	85.1	191.6	83.9	143.8	59.2	44.4	101.4	43.8
1959	80.5	191.8	85.5	144.6	55.7	42.0	94.1	44.6
1960	85.0	185.0	86.4	141.0	60.3	46.0	98.4	46.7
1961	84.6	175.1	86.5	135.3	62.5	48.3	97.8	49.4
1962	84.2	169.7	87.1	132.5	63.6	49.6	96.7	51.3
1963	86.9	162.6	87.8	128.6	67.6	53.4	99.0	54.0
1964	84.8	153.8	88.7	123.8	68.5	55.2	95.7	57.7
1965	87.9	149.8	89.3	121.8	72.2	58.7	98.4	59.7
1966	83.0	135.7	89.8	113.8	72.9	61.2	92.4	66.2
1967	87.2	130.8	90.6	111.3	78.4	66.7	96.3	69.2
1968	85.5	128.0	91.2	109.9	77.8	66.8	93.7	71.3
1969	87.4	121.8	91.7	106.5	82.0	71.7	95.2	75.3
1970	92.1	113.5	92.6	102.8	89.5	81.2	99.5	81.6
1971	97.4	110.2	93.7	101.8	95.7	88.4	104.0	85.0
1972	95.2	111.4	94.1	102.6	92.8	85.5	101.2	84.5
1973	94.6	109.0	96.0	102.4	92.4	86.8	98.6	88.1
1974	95.3	109.1	97.0	103.0	92.6	87.3	98.2	88.9
1975	101.3	105.9	98.5	102.1	99.2	95.7	102.9	93.0
1976	96.7	101.1	99.2	100.1	96.6	95.7	97.6	98.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	101.7	101.8	101.8	98.0	98.1	97.9	100.2
1979	106.4	99.1	104.1	101.7	104.7	107.4	102.2	105.1
1980	107.8	96.8	106.0	101.5	106.2	111.3	101.7	109.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs Real Output	Labor Input	Capital Input	Multi-Factor Input	Productivity Ratios Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.9	79.4	39.2	68.5	52.3	45.1	91.5	49.3
1949	34.0	72.4	39.8	63.7	53.4	46.9	85.3	55.0
1950	38.7	78.2	41.3	68.3	56.7	49.5	93.6	52.9
1951	43.1	84.2	44.6	73.6	58.6	51.2	96.6	53.0
1952	44.5	85.4	46.5	75.0	59.4	52.1	95.8	54.4
1953	47.6	89.8	48.1	78.6	60.5	53.0	98.9	53.6
1954	44.2	82.1	48.9	73.3	60.3	53.8	90.4	59.6
1955	48.9	86.6	50.9	77.1	63.4	56.5	96.2	58.7
1956	49.3	87.9	53.3	78.8	62.6	56.1	92.5	60.6
1957	49.5	86.5	54.8	78.2	63.3	57.2	90.4	63.3
1958	45.3	79.4	55.2	73.3	61.8	57.0	82.0	69.5
1959	50.5	84.7	56.3	77.3	65.4	59.7	89.9	66.4
1960	50.7	84.4	57.1	77.4	65.6	60.1	88.8	67.7
1961	50.8	82.3	58.1	76.1	66.7	61.7	87.4	70.6
1962	55.1	85.6	59.5	78.9	69.9	64.4	92.6	69.5
1963	59.7	86.5	60.9	79.9	74.7	69.0	98.1	70.4
1964	64.0	88.4	62.7	81.8	78.2	72.4	102.0	71.0
1965	69.9	93.6	65.5	86.4	80.9	74.6	106.7	70.0
1966	75.2	99.7	69.9	92.1	81.7	75.4	107.7	70.0
1967	75.1	99.6	73.8	93.0	80.8	75.4	101.8	74.1
1968	79.2	101.4	76.6	95.1	83.2	78.1	103.4	75.5
1969	81.8	103.0	79.6	97.1	84.3	79.4	102.8	77.2
1970	77.1	97.3	81.5	93.3	82.6	79.2	94.6	83.7
1971	78.8	93.7	82.5	90.9	86.7	84.1	95.5	88.1
1972	86.3	97.8	84.6	94.4	91.4	88.3	102.1	86.5
1973	96.0	103.2	87.7	99.3	96.7	93.1	109.4	85.1
1974	92.0	101.2	92.1	98.9	93.0	90.9	99.9	91.0
1975	85.5	91.4	93.6	92.0	93.0	93.5	91.4	102.4
1976	93.7	95.9	96.5	96.1	97.5	97.7	97.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.4	104.1	104.3	101.0	100.9	101.2	99.6
1979	108.6	106.6	108.8	107.2	101.4	101.9	99.9	102.0
1980	103.7	102.2	111.8	104.6	99.1	101.4	92.7	109.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	36.2	64.9	37.2	55.6	65.1	55.7	97.1	57.4
1949	36.1	64.2	38.0	55.3	65.2	56.1	94.8	59.2
1950	38.7	64.7	39.3	56.0	69.1	59.9	98.5	60.8
1951	40.3	66.6	40.3	57.6	69.9	60.5	99.9	60.5
1952	41.7	67.1	41.2	58.3	71.5	62.0	101.1	61.4
1953	42.9	67.8	42.2	59.1	72.6	63.2	101.6	62.2
1954	43.2	67.6	43.3	59.3	72.8	63.8	99.7	64.0
1955	46.2	69.9	44.9	61.3	75.3	66.0	102.9	64.2
1956	47.9	72.1	46.2	63.2	75.9	66.5	103.7	64.2
1957	48.7	72.1	47.7	63.7	76.5	67.5	102.0	66.2
1958	49.4	70.7	49.0	63.1	78.3	69.9	100.9	69.3
1959	51.2	73.0	50.6	65.2	78.5	70.1	101.2	69.3
1960	53.5	73.9	52.3	66.3	80.7	72.4	102.4	70.7
1961	54.9	73.6	53.9	66.7	82.3	74.6	101.8	73.2
1962	57.4	74.5	56.0	68.0	84.4	77.0	102.6	75.1
1963	58.9	75.4	58.1	69.3	85.0	78.1	101.5	77.0
1964	62.4	77.3	60.5	71.4	87.5	80.8	103.2	78.3
1965	66.1	79.2	63.2	73.6	89.7	83.4	104.5	79.8
1966	69.4	80.6	66.2	75.5	91.8	86.1	104.8	82.2
1967	71.7	81.0	68.8	76.7	93.5	88.5	104.2	84.9
1968	75.5	82.6	71.8	78.9	95.7	91.3	105.1	86.9
1969	77.5	86.0	75.2	82.2	94.3	90.1	103.1	87.4
1970	78.6	86.8	78.1	83.7	93.8	90.5	100.7	89.9
1971	81.1	87.9	81.1	85.5	94.9	92.3	100.0	92.3
1972	85.8	90.1	84.5	88.1	97.3	95.2	101.5	93.8
1973	89.9	93.3	88.5	91.6	98.1	96.3	101.5	94.8
1974	89.2	94.8	91.6	93.7	95.2	94.0	97.4	96.6
1975	89.4	93.3	93.7	93.5	95.6	95.7	95.4	100.3
1976	94.2	95.8	96.5	96.1	98.0	98.3	97.6	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.4	103.8	104.9	99.8	99.3	100.8	98.5
1979	107.3	109.8	107.5	109.0	98.4	97.7	99.8	97.9
1980	108.3	111.1	110.8	111.0	97.5	97.5	97.7	99.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.1	112.5	38.7	80.2	71.2	50.8	147.6	34.4
1949	50.0	97.2	39.4	71.9	69.6	51.5	126.9	40.6
1950	56.0	98.3	41.4	73.4	76.4	57.0	135.3	42.1
1951	61.2	102.5	43.0	76.4	80.1	59.7	142.3	42.0
1952	60.3	99.6	44.9	75.5	79.8	60.6	134.4	45.1
1953	61.7	96.8	46.4	74.6	82.6	63.7	132.8	48.0
1954	59.6	88.5	48.7	70.9	84.1	67.4	122.4	55.1
1955	66.5	93.3	51.6	74.8	88.9	71.3	129.0	55.3
1956	70.1	97.0	54.1	78.0	89.9	72.3	129.7	55.7
1957	70.0	96.2	56.7	78.7	89.0	72.8	123.4	59.0
1958	64.3	85.0	58.8	73.2	87.8	75.6	109.3	69.2
1959	67.2	86.5	61.4	75.2	89.4	77.7	109.4	71.0
1960	68.2	84.1	63.6	74.8	91.2	81.1	107.2	75.6
1961	68.5	80.0	66.2	73.6	93.1	85.7	103.6	82.7
1962	70.5	78.2	68.4	73.6	95.8	90.1	103.1	87.5
1963	73.5	76.3	70.1	73.3	100.3	96.4	104.9	91.9
1964	76.5	77.1	73.2	75.1	101.9	99.2	104.6	94.8
1965	79.5	76.9	75.3	75.9	104.7	103.4	105.6	97.9
1966	83.6	77.2	77.7	77.1	108.4	108.4	107.6	100.7
1967	85.8	74.6	79.5	76.5	112.2	115.0	107.9	106.6
1968	89.0	73.3	81.5	76.6	116.2	121.5	109.3	111.1
1969	92.2	75.3	83.6	78.7	117.1	122.4	110.3	110.9
1970	95.7	74.8	84.7	78.9	121.3	127.9	112.9	113.2
1971	93.2	72.8	85.3	77.9	119.7	128.0	109.3	117.1
1972	96.1	74.9	85.8	79.3	121.1	128.3	112.0	114.5
1973	97.0	77.4	86.9	81.3	119.4	125.4	111.6	112.4
1974	97.3	83.2	88.5	85.4	113.9	116.9	109.9	106.4
1975	95.4	88.8	91.2	89.8	106.2	107.4	104.5	102.7
1976	96.6	94.5	95.0	94.7	102.0	102.2	101.6	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.7	104.8	104.7	99.2	99.2	99.1	100.1
1979	106.3	116.8	109.2	113.7	93.5	91.0	97.3	93.5
1980	114.4	125.5	113.6	120.7	94.8	91.1	100.7	90.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.9	64.5	25.0	62.0	77.3	74.3	191.9	38.7
1949	47.9	63.9	25.1	61.4	78.0	75.0	191.1	39.2
1950	52.8	66.7	27.7	64.2	82.3	79.2	190.5	41.6
1951	58.7	73.1	30.6	70.4	83.4	80.3	192.1	41.8
1952	61.1	74.7	32.3	72.0	84.9	81.8	189.4	43.2
1953	63.0	73.0	31.8	70.4	89.4	86.2	198.0	43.5
1954	65.0	71.7	33.1	69.3	93.7	90.5	196.2	46.1
1955	68.9	75.7	35.0	73.2	94.2	91.0	196.9	46.2
1956	73.8	80.8	37.8	78.1	94.5	91.4	195.2	46.8
1957	74.0	78.6	41.3	76.3	97.0	94.1	179.1	52.6
1958	76.1	75.5	43.2	73.6	103.5	100.8	176.4	57.2
1959	82.2	80.0	46.9	78.0	105.3	102.7	175.3	58.6
1960	83.3	78.2	49.5	76.5	109.0	106.6	168.4	63.3
1961	84.3	77.2	52.6	75.7	111.4	109.2	160.4	68.1
1962	87.5	78.8	56.0	77.3	113.1	111.1	156.3	71.1
1963	90.2	80.9	60.0	79.6	113.3	111.4	150.2	74.2
1964	94.2	83.2	64.0	81.9	115.0	113.3	147.2	77.0
1965	98.3	85.7	68.2	84.6	116.2	114.7	144.2	79.5
1966	98.6	88.0	71.4	86.9	113.5	112.1	138.2	81.1
1967	96.5	84.5	75.3	83.8	115.2	114.2	128.1	89.1
1968	102.7	83.6	77.9	83.1	123.7	122.9	131.8	93.2
1969	100.8	91.0	81.2	90.3	111.7	110.7	124.2	89.1
1970	96.5	89.4	83.0	88.9	108.6	108.0	116.3	92.8
1971	104.7	92.2	86.2	91.8	114.1	113.5	121.5	93.4
1972	107.3	96.3	91.4	95.9	111.8	111.3	117.4	94.9
1973	108.7	101.6	95.0	101.1	107.5	106.9	114.4	93.5
1974	96.3	101.0	98.5	100.8	95.5	95.4	97.8	97.5
1975	87.3	89.8	97.3	90.4	96.6	97.2	89.7	108.4
1976	95.4	92.4	97.4	92.8	102.7	103.2	97.9	105.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	111.6	103.1	111.3	95.5	95.3	103.1	92.4
1979	105.2	118.6	105.6	118.0	89.2	88.7	99.7	89.0
1980	95.8	117.2	102.9	116.5	82.2	81.7	93.1	87.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.7	115.7	62.4	105.1	56.8	51.6	95.7	53.9
1949	52.2	105.7	63.7	97.3	53.6	49.4	82.0	60.2
1950	54.6	104.7	64.7	96.8	56.5	52.2	84.4	61.8
1951	59.5	109.1	66.1	100.6	59.2	54.5	90.0	60.6
1952	57.6	106.6	67.3	98.8	58.3	54.0	85.5	63.2
1953	57.1	106.1	68.3	98.6	57.9	53.8	83.6	64.4
1954	53.4	99.0	68.7	93.0	57.5	54.0	77.8	69.4
1955	58.2	101.5	69.1	95.1	61.2	57.3	84.2	68.1
1956	60.3	102.4	69.9	95.9	62.9	58.9	86.3	68.3
1957	59.9	99.9	71.1	94.2	63.6	60.0	84.2	71.2
1958	55.5	91.6	71.2	87.6	63.4	60.6	78.0	77.7
1959	58.6	94.3	72.1	90.0	65.1	62.1	81.3	76.4
1960	59.3	93.3	73.0	89.3	66.4	63.6	81.3	78.3
1961	59.0	90.7	73.4	87.3	67.5	65.0	80.4	80.9
1962	61.3	91.1	73.9	87.7	69.9	67.3	82.9	81.1
1963	64.6	91.0	74.2	87.7	73.7	71.0	87.1	81.5
1964	66.6	92.3	75.4	89.0	74.3	72.1	88.4	81.6
1965	72.5	95.1	77.0	91.6	79.2	76.2	94.2	80.9
1966	78.6	97.2	79.2	93.7	83.9	80.8	99.3	81.4
1967	78.3	90.7	81.2	88.8	88.2	86.4	96.5	89.5
1968	83.9	97.4	83.9	94.7	88.6	86.1	100.0	86.1
1969	84.9	99.2	85.9	96.6	87.9	85.6	98.8	86.6
1970	83.5	97.8	87.5	95.8	87.2	85.3	95.4	89.5
1971	83.0	95.6	88.3	94.1	88.2	86.8	93.9	92.4
1972	89.2	97.7	88.1	95.8	93.2	91.3	101.3	90.2
1973	94.6	100.9	90.7	98.8	95.8	93.8	104.3	89.9
1974	96.9	99.8	92.8	98.4	98.5	97.1	104.4	93.0
1975	90.4	94.2	95.6	94.5	95.7	96.0	94.5	101.5
1976	94.9	96.3	97.9	96.7	98.2	98.5	96.9	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	105.1	102.3	104.5	102.4	101.8	104.6	97.4
1979	109.4	108.9	105.1	108.2	101.1	100.4	104.1	96.5
1980	110.8	105.1	106.9	105.5	105.0	105.4	103.6	101.7

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	113.4	295.8	90.4	250.6	45.2	38.3	125.4	30.6
1949	94.2	252.2	91.9	217.0	43.4	37.3	102.4	36.5
1950	102.4	239.6	92.7	207.4	49.4	42.7	110.5	38.7
1951	115.2	250.8	94.0	216.5	53.2	45.9	122.5	37.5
1952	110.3	239.9	95.1	208.2	53.0	46.0	115.9	39.7
1953	107.3	236.0	95.9	205.3	52.3	45.5	112.0	40.6
1954	96.9	209.3	95.9	184.7	52.5	46.3	101.0	45.8
1955	107.2	213.2	95.9	187.7	57.1	50.3	111.8	45.0
1956	109.8	209.5	96.3	184.9	59.4	52.4	113.9	46.0
1957	103.4	197.4	97.0	175.6	58.9	52.4	106.6	49.1
1958	91.9	168.2	96.4	152.7	60.2	54.6	95.3	57.3
1959	96.1	163.6	96.1	149.1	64.5	58.8	100.1	58.7
1960	95.0	155.9	96.6	143.2	66.4	61.0	98.4	62.0
1961	94.2	145.9	96.2	135.2	69.7	64.5	97.8	66.0
1962	97.7	143.3	95.5	132.9	73.5	68.2	102.3	66.6
1963	102.6	139.7	95.1	130.0	78.9	73.5	107.9	68.1
1964	107.1	138.8	95.7	129.4	82.7	77.2	111.8	69.0
1965	115.7	135.3	96.3	126.8	91.2	85.5	120.1	71.2
1966	123.7	133.0	97.6	125.3	98.7	93.0	126.7	73.4
1967	117.2	126.0	98.0	119.8	97.8	93.0	119.5	77.8
1968	115.0	122.4	97.8	116.9	98.3	93.9	117.6	79.9
1969	118.2	119.8	98.2	114.9	102.8	98.7	120.4	82.0
1970	112.9	116.9	97.9	112.6	100.2	96.6	115.3	83.8
1971	100.4	109.1	97.2	106.5	94.3	92.0	103.3	89.1
1972	101.3	106.4	96.4	104.2	97.3	95.2	105.1	90.6
1973	105.5	107.4	95.8	104.8	100.7	98.3	110.2	89.2
1974	108.4	108.3	95.5	105.4	102.8	100.1	113.5	88.2
1975	95.2	100.1	97.2	99.5	95.7	95.1	97.9	97.1
1976	99.8	99.2	98.6	99.1	100.8	100.7	101.2	99.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	99.4	101.5	99.8	104.3	104.8	102.6	102.2
1979	108.3	102.9	103.3	102.9	105.2	105.2	104.9	100.3
1980	108.4	96.9	104.5	98.5	110.1	111.9	103.7	107.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.3	72.9	33.6	65.6	70.5	63.5	137.6	46.1
1949	41.8	70.9	34.7	64.2	65.1	58.9	120.4	48.9
1950	42.7	72.7	36.0	65.9	64.9	58.8	118.6	49.6
1951	45.6	75.5	37.6	68.4	66.7	60.5	121.5	49.8
1952	44.4	74.9	38.8	68.2	65.1	59.3	114.4	51.8
1953	44.6	75.2	40.0	68.6	64.9	59.3	111.5	53.2
1954	42.6	72.7	40.7	66.7	63.8	58.6	104.6	56.0
1955	46.0	75.0	41.8	68.8	66.9	61.3	110.2	55.7
1956	48.0	76.9	42.9	70.5	68.1	62.5	112.1	55.7
1957	49.1	76.7	44.6	70.7	69.4	64.0	110.0	58.1
1958	46.5	73.5	45.4	68.1	68.2	63.3	102.4	61.8
1959	49.2	77.9	47.5	72.1	68.2	63.2	103.7	61.0
1960	50.4	78.4	48.8	72.8	69.2	64.3	103.3	62.3
1961	50.2	77.6	49.9	72.4	69.3	64.7	100.5	64.3
1962	52.3	78.7	51.9	73.6	71.0	66.4	100.8	65.8
1963	55.1	79.4	52.8	74.3	74.1	69.4	104.4	66.5
1964	56.5	81.3	54.5	76.2	74.1	69.5	103.7	67.0
1965	61.8	85.6	57.2	80.2	77.0	72.1	107.9	66.8
1966	67.4	88.7	60.3	83.3	80.8	75.9	111.6	68.0
1967	68.6	82.3	63.9	78.8	87.1	83.4	107.4	77.7
1968	76.1	91.5	69.6	87.3	87.2	83.2	109.3	76.1
1969	76.7	94.4	73.4	90.3	84.9	81.2	104.4	77.8
1970	76.1	93.3	76.9	90.1	84.5	81.6	99.0	82.4
1971	78.7	92.4	79.3	89.8	87.5	85.1	99.2	85.8
1972	86.2	95.6	79.6	92.5	93.2	90.1	108.3	83.3
1973	91.9	99.3	85.5	96.6	95.1	92.6	107.5	86.1
1974	94.1	97.8	90.1	96.3	97.6	96.2	104.4	92.1
1975	89.2	92.8	94.0	93.0	95.9	96.2	94.9	101.3
1976	93.6	95.7	97.2	96.0	97.6	97.9	96.3	101.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	106.2	103.1	105.6	102.0	101.4	104.5	97.1
1979	109.7	109.9	107.0	109.3	100.3	99.8	102.5	97.3
1980	111.4	107.1	109.4	107.5	103.6	104.0	101.8	102.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.7	74.8	16.6	51.7	26.6	18.4	82.5	22.2
1949	14.4	72.2	17.4	50.2	28.7	19.9	82.5	24.2
1950	15.1	69.4	18.1	48.5	31.1	21.8	83.6	26.0
1951	16.7	70.9	18.8	49.7	33.6	23.5	98.6	26.5
1952	17.7	72.4	20.0	50.9	34.8	24.4	88.6	27.6
1953	19.4	74.9	21.0	52.7	36.7	25.8	92.2	28.0
1954	19.8	73.9	22.1	52.3	37.8	26.8	89.5	29.9
1955	21.7	73.8	23.3	52.6	41.3	29.4	93.1	31.6
1956	23.0	76.0	25.1	54.3	42.4	30.3	91.8	33.0
1957	24.7	75.4	27.4	54.5	45.4	32.8	90.0	36.4
1958	25.6	70.9	29.2	52.0	49.2	36.0	87.7	41.1
1959	27.5	70.3	30.9	52.0	52.9	39.1	88.9	44.0
1960	29.1	71.1	33.2	53.4	54.5	41.0	87.8	46.6
1961	30.5	69.8	35.3	53.7	56.7	43.6	86.4	50.5
1962	32.7	70.3	37.8	55.1	59.4	46.5	86.6	53.7
1963	35.1	70.3	40.4	56.3	62.3	49.9	86.7	57.5
1964	37.4	72.7	43.4	58.9	63.5	51.4	86.1	59.7
1965	40.6	76.1	46.9	62.3	65.1	53.4	86.7	61.6
1966	44.4	79.9	50.5	66.0	67.2	55.5	87.8	63.3
1967	47.6	81.1	54.4	68.5	69.6	58.7	87.6	67.1
1968	51.6	82.9	58.2	71.1	72.5	62.2	88.5	70.2
1969	57.2	89.5	62.5	76.6	74.6	63.9	91.5	69.8
1970	62.6	94.1	67.5	81.5	76.8	66.5	92.7	71.7
1971	66.0	91.7	72.5	82.6	79.9	71.9	91.0	79.0
1972	71.5	96.2	77.6	87.4	81.9	74.3	92.2	80.7
1973	76.7	99.0	82.9	91.3	84.0	77.5	92.6	83.7
1974	79.7	100.4	88.3	94.7	84.2	79.4	90.2	88.0
1975	86.8	97.4	91.9	94.8	91.5	89.1	94.4	94.3
1976	93.2	96.8	95.4	96.1	97.0	96.3	97.7	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	105.3	106.0	105.6	103.8	104.1	103.4	100.7
1979	120.6	111.3	112.5	111.8	107.9	108.4	107.2	101.1
1980	125.3	115.4	118.2	116.7	107.3	108.6	105.9	102.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.2	81.4	25.2	49.6	36.8	22.4	72.3	31.0
1949	20.2	81.8	26.8	50.5	40.0	24.7	75.3	32.8
1950	21.7	82.0	28.4	51.4	42.2	26.4	76.2	34.6
1951	25.1	81.9	30.0	52.0	48.2	30.7	83.7	36.6
1952	26.9	81.5	31.7	52.6	51.2	33.0	85.1	38.8
1953	28.9	82.0	33.5	53.7	53.8	35.3	86.2	40.9
1954	31.7	81.7	35.2	54.4	58.3	38.8	90.1	43.0
1955	33.5	82.2	36.7	55.3	60.6	40.8	91.2	44.7
1956	35.9	81.8	38.3	55.8	64.4	43.9	94.0	46.8
1957	38.1	82.6	40.1	57.0	66.8	46.1	94.9	48.6
1958	39.6	82.4	41.9	57.7	68.6	48.1	94.5	50.8
1959	43.3	82.9	43.3	58.6	73.8	52.2	100.0	52.2
1960	46.4	83.3	44.7	59.6	77.9	55.7	103.9	53.7
1961	48.9	82.9	46.0	60.3	81.1	59.0	106.3	55.5
1962	51.1	82.6	47.3	61.0	83.8	61.9	108.1	57.3
1963	53.8	83.8	48.6	62.3	86.4	64.1	110.5	58.0
1964	57.3	83.8	50.2	63.2	90.6	68.3	114.1	59.9
1965	60.1	86.0	52.1	65.2	92.2	69.9	115.5	60.5
1966	64.0	86.8	54.5	67.0	95.5	73.7	117.5	62.7
1967	67.3	88.4	57.4	69.4	96.9	76.1	117.1	65.0
1968	73.6	89.6	60.9	72.0	102.2	82.2	120.9	68.0
1969	78.4	92.5	64.8	75.5	103.8	84.7	121.1	70.0
1970	80.7	95.3	68.9	79.1	102.0	84.7	117.1	72.4
1971	86.4	94.6	73.6	81.7	105.7	91.3	117.4	77.8
1972	89.1	96.7	78.7	85.6	104.1	92.2	113.3	81.4
1973	93.5	99.3	84.0	89.9	103.9	94.1	111.3	84.5
1974	90.0	100.1	88.9	93.2	96.5	89.9	101.2	88.8
1975	96.1	97.7	92.3	94.4	101.8	98.3	104.1	94.4
1976	96.5	98.0	95.8	96.6	99.9	98.5	100.8	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.5	104.6	104.9	100.0	99.4	100.3	99.1
1979	107.8	110.4	109.3	109.7	98.3	97.6	98.7	99.0
1980	112.0	113.1	113.2	113.1	99.0	99.0	99.0	100.0

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.8	71.3	24.4	63.3	53.3	47.3	138.4	34.2
1949	34.6	71.7	25.2	63.8	54.2	48.2	137.3	35.1
1950	37.9	72.0	28.2	64.7	58.6	52.6	134.5	39.1
1951	38.2	73.4	29.5	66.1	57.9	52.1	129.8	40.2
1952	39.4	73.3	30.1	66.2	59.6	53.7	131.0	41.0
1953	40.7	74.1	31.1	67.0	60.7	54.9	130.7	42.0
1954	41.0	74.4	32.3	67.5	60.7	55.1	126.7	43.5
1955	44.7	76.3	35.4	69.7	64.1	58.6	126.1	46.5
1956	46.0	78.0	37.3	71.5	64.3	59.0	123.4	47.8
1957	46.8	77.9	38.7	71.8	65.1	60.0	120.9	49.6
1958	46.7	77.3	39.6	71.4	65.4	60.4	118.0	51.2
1959	50.0	80.0	41.8	74.1	67.4	62.5	119.5	52.3
1960	50.9	81.0	43.9	75.3	67.5	62.8	115.9	54.2
1961	51.4	80.5	45.0	75.0	68.5	63.8	114.3	55.9
1962	54.7	81.1	47.4	75.9	72.1	67.5	115.4	58.4
1963	56.8	80.6	49.9	75.9	74.8	70.4	113.9	61.9
1964	60.3	83.1	52.6	78.4	76.9	72.5	114.6	63.3
1965	64.2	85.3	56.5	80.8	79.4	75.3	113.6	66.3
1966	67.7	85.5	61.5	81.8	82.8	79.2	110.1	71.9
1967	69.4	84.7	64.2	81.5	85.1	81.9	108.0	75.8
1968	73.6	84.1	68.4	81.7	90.1	87.5	107.6	81.3
1969	75.2	91.9	72.7	88.9	84.6	81.8	103.4	79.1
1970	76.4	88.4	75.4	86.3	88.5	86.5	101.4	85.3
1971	80.3	89.8	79.4	88.2	91.1	89.4	101.2	88.3
1972	86.4	92.2	83.5	90.8	95.2	93.7	103.5	90.5
1973	91.5	94.5	88.6	93.6	97.8	96.8	103.2	93.8
1974	89.7	94.4	91.5	93.9	95.5	95.0	98.0	96.9
1975	90.8	94.3	91.0	93.8	96.8	96.3	99.8	96.5
1976	95.4	96.8	94.9	96.5	98.8	98.5	100.5	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	103.6	105.5	103.9	101.0	101.2	99.4	101.8
1979	107.5	106.1	109.0	106.5	100.9	101.3	98.6	102.8
1980	107.3	106.2	113.7	107.4	99.9	101.0	94.3	107.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.1	43.8	13.7	38.3	81.2	70.9	227.2	31.2
1949	31.9	44.4	13.6	38.7	82.2	71.7	233.9	30.7
1950	33.7	45.5	13.6	39.7	85.1	74.1	247.3	30.0
1951	36.2	46.8	13.7	40.7	88.9	77.4	264.3	29.3
1952	37.8	48.6	14.2	42.2	89.4	77.8	266.7	29.2
1953	39.5	50.2	15.0	43.7	90.4	78.8	263.8	29.9
1954	41.1	52.1	14.9	45.3	90.8	78.9	276.1	28.6
1955	44.1	54.3	15.6	47.2	93.4	81.2	282.3	28.8
1956	47.0	55.3	16.3	48.1	97.6	85.0	288.0	29.5
1957	48.8	56.2	16.9	49.0	99.7	86.9	289.4	30.0
1958	49.0	57.8	17.9	50.4	97.1	84.7	273.9	30.9
1959	50.3	59.8	19.3	52.3	96.2	84.2	261.2	32.2
1960	53.1	61.8	20.6	54.3	97.8	85.8	257.2	33.4
1961	54.8	63.1	22.4	55.7	98.5	86.9	245.2	35.4
1962	56.8	65.1	24.4	57.7	98.4	87.3	232.7	37.5
1963	58.3	66.3	27.0	59.3	98.3	87.9	215.6	40.7
1964	60.5	68.6	32.1	62.2	97.3	88.3	188.3	46.9
1965	62.4	70.3	34.8	64.2	97.3	88.8	179.4	49.5
1966	64.9	71.1	37.0	65.3	99.4	91.3	175.4	52.1
1967	68.1	73.3	40.2	67.7	100.5	92.9	169.3	54.9
1968	72.7	76.8	42.5	71.1	102.3	94.6	170.9	55.3
1969	77.9	81.0	48.6	75.8	102.7	96.1	160.1	60.0
1970	79.8	82.7	52.9	77.9	102.5	96.6	150.8	64.1
1971	81.4	84.6	57.2	80.1	101.5	96.2	142.3	67.6
1972	84.3	87.1	64.3	83.4	101.1	96.8	131.1	73.8
1973	88.6	90.6	71.9	87.6	101.2	97.8	123.3	79.4
1974	92.5	93.0	78.7	90.7	101.9	99.4	117.5	84.6
1975	94.5	94.6	84.6	93.0	101.6	99.9	111.8	89.3
1976	95.6	96.4	91.6	95.6	99.9	99.1	104.4	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	107.0	109.2	107.2	97.6	97.8	95.8	102.0
1979	108.5	112.0	119.2	113.1	96.0	96.9	91.0	106.4
1980	108.9	116.0	130.6	118.2	92.1	93.9	83.3	112.6

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.4	52.8	61.2	60.3	65.3	74.6	64.3	115.9
1949	41.4	53.6	61.5	60.6	68.3	77.3	67.3	114.9
1950	43.7	54.3	62.1	61.2	71.4	80.6	70.4	114.4
1951	43.3	55.0	62.3	61.5	70.4	78.8	69.5	113.4
1952	45.2	55.9	62.5	61.7	73.3	80.8	72.4	111.7
1953	45.4	57.7	62.7	62.1	73.1	78.7	72.4	108.7
1954	46.3	59.6	63.4	63.0	73.5	77.6	73.0	106.4
1955	47.7	61.7	64.4	64.1	74.5	77.4	74.2	104.3
1956	48.6	62.5	64.9	64.6	75.1	77.7	74.8	103.8
1957	50.1	63.8	65.7	65.5	76.5	78.6	76.3	103.0
1958	52.3	65.4	66.2	66.1	79.1	79.9	79.0	101.2
1959	55.5	66.7	67.1	67.1	82.8	83.2	82.7	100.6
1960	55.9	67.0	68.2	68.1	82.1	83.4	82.0	101.7
1961	58.1	66.2	69.5	69.2	83.9	87.8	83.7	104.9
1962	61.6	67.6	71.1	70.9	86.9	91.2	86.6	105.3
1963	62.3	73.3	73.0	73.0	85.2	84.9	85.3	99.6
1964	64.8	74.5	74.5	74.5	87.0	87.0	87.0	100.0
1965	68.5	74.5	76.7	76.5	89.5	91.9	89.3	102.9
1966	70.3	72.1	78.6	78.1	89.9	97.4	89.4	109.0
1967	71.5	73.1	80.1	79.6	89.8	97.8	89.2	109.6
1968	73.4	72.8	81.6	81.0	90.6	100.8	89.9	112.1
1969	75.1	77.7	83.5	83.1	90.4	96.7	89.9	107.5
1970	74.9	79.1	85.6	85.1	88.0	94.7	87.5	108.2
1971	80.0	84.1	88.3	87.9	90.9	95.1	90.6	104.9
1972	82.9	88.3	91.2	91.0	91.1	94.0	90.9	103.3
1973	84.5	91.4	94.6	94.3	89.6	92.5	89.4	103.5
1974	86.6	92.5	96.1	95.8	90.4	93.7	90.2	103.9
1975	85.4	91.4	97.1	96.7	88.4	93.5	88.0	106.3
1976	89.9	93.7	98.3	98.0	91.7	96.0	91.4	105.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	110.9	101.9	102.9	99.3	92.1	100.3	91.9
1979	101.5	119.8	103.8	105.4	96.4	84.8	97.8	86.7
1980	101.9	123.3	105.2	106.9	95.3	82.6	96.9	85.3

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.4	44.5	27.6	39.1	90.5	79.4	128.1	62.0
1949	35.4	45.3	28.5	39.9	88.7	78.0	124.3	62.8
1950	36.9	45.5	29.5	40.3	91.7	81.2	124.9	65.0
1951	37.4	46.3	30.7	41.2	90.7	80.7	121.6	66.4
1952	39.8	48.0	31.8	42.6	93.3	82.9	125.2	66.2
1953	41.2	49.5	33.1	44.1	93.3	83.1	124.5	66.8
1954	41.3	50.6	34.3	45.2	91.3	81.6	120.3	67.8
1955	42.9	52.9	36.0	47.3	90.7	81.1	119.2	68.0
1956	43.8	55.5	37.7	49.6	88.4	79.0	116.2	68.0
1957	44.0	56.8	39.5	51.0	86.2	77.4	111.4	69.5
1958	47.2	56.4	41.2	51.3	92.0	83.6	114.4	73.1
1959	43.8	58.2	43.2	53.0	82.6	75.3	101.2	74.4
1960	50.1	60.1	45.4	55.0	91.1	83.4	110.4	75.5
1961	53.0	61.1	47.8	56.5	93.9	86.8	110.9	78.3
1962	54.2	62.3	50.6	58.3	93.0	86.9	107.1	81.2
1963	53.4	64.7	53.3	60.8	87.8	82.5	100.1	82.4
1964	58.6	65.7	56.5	62.5	93.7	89.2	103.7	86.0
1965	61.7	67.2	59.7	64.6	95.4	91.8	103.3	88.8
1966	65.6	69.9	63.1	67.6	97.1	93.9	103.9	90.4
1967	71.2	74.7	66.4	71.8	99.1	95.3	107.3	88.8
1968	72.8	79.1	70.3	76.1	95.6	92.0	103.4	89.0
1969	74.4	74.5	74.3	74.4	99.9	99.8	100.0	99.8
1970	76.5	82.2	77.7	80.8	94.6	93.0	98.5	94.4
1971	75.0	83.1	80.7	82.3	91.0	90.2	92.9	97.1
1972	79.3	84.0	84.1	84.0	94.4	94.4	94.2	100.2
1973	83.6	88.0	87.9	88.0	95.0	95.0	95.1	99.9
1974	84.3	92.6	91.2	92.2	91.5	91.1	92.5	98.5
1975	85.9	92.5	93.9	92.9	92.4	92.9	91.5	101.5
1976	92.5	95.3	96.8	95.8	96.5	97.0	95.5	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	105.1	103.7	104.8	97.9	97.6	99.0	98.7
1979	105.4	110.2	107.1	109.4	96.3	95.6	98.4	97.2
1980	109.8	113.3	110.4	112.6	97.5	96.9	99.4	97.4

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TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	71.7	101.9	45.5	40.9	64.7	63.3
1949	45.2	110.8	72.6	100.4	45.0	40.8	62.3	65.5
1950	48.3	110.6	74.1	100.8	47.9	43.7	65.2	67.0
1951	48.9	112.9	77.1	103.3	47.3	43.3	63.5	68.2
1952	51.6	112.5	77.2	103.1	50.1	45.9	66.9	68.7
1953	54.7	112.2	77.1	102.8	53.2	48.7	71.0	68.7
1954	54.1	110.7	76.8	101.7	53.2	48.8	70.4	69.4
1955	55.3	111.1	78.2	102.4	54.0	49.8	70.8	70.4
1956	57.8	111.6	79.4	103.1	56.1	51.8	72.8	71.1
1957	59.9	108.5	79.3	100.9	59.3	55.2	75.5	73.1
1958	60.3	106.8	78.8	99.6	60.5	56.5	76.5	73.8
1959	61.1	107.6	79.6	100.4	60.8	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.1	62.2	58.0	79.1	73.3
1961	62.9	106.7	79.2	99.7	63.1	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.3	65.9	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.1	70.8	66.6	86.8	76.7
1964	71.0	105.1	81.3	99.1	71.7	67.6	87.4	77.3
1965	74.2	106.3	80.8	99.8	74.3	69.7	91.7	76.0
1966	78.3	107.3	82.5	101.0	77.5	73.0	94.8	76.9
1967	77.1	107.6	84.9	101.9	75.6	71.6	90.8	78.8
1968	78.1	107.1	86.2	101.9	76.6	72.9	90.6	80.5
1969	81.6	107.6	86.8	102.4	79.6	75.8	93.9	80.7
1970	82.7	106.5	88.1	101.9	81.2	77.7	94.0	82.7
1971	86.0	104.3	89.5	100.6	85.5	82.5	96.2	85.8
1972	91.2	103.3	90.2	100.0	91.2	88.3	101.1	87.4
1973	101.2	101.5	90.5	98.7	102.5	99.8	111.8	89.2
1974	95.0	101.1	92.3	98.9	96.0	94.0	102.9	91.3
1975	95.6	98.1	95.1	97.4	98.2	97.4	100.5	96.9
1976	99.6	100.2	98.2	99.7	99.9	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.2	100.7	99.3	99.8	97.8	102.1
1979	105.0	101.0	105.7	102.2	102.7	103.9	99.3	104.7
1980	106.9	98.5	105.6	100.3	106.6	108.6	101.2	107.3

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TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	40.4	94.3	57.7	33.3	134.6	24.7
1949	58.3	152.9	40.3	89.2	65.4	38.2	144.9	26.3
1950	55.3	146.7	42.8	87.5	63.2	37.7	129.3	29.1
1951	66.8	149.7	49.4	91.9	72.6	44.6	135.2	33.0
1952	64.6	151.3	51.8	93.8	68.9	42.7	124.7	34.3
1953	59.6	147.5	54.0	93.1	64.0	40.4	110.3	36.6
1954	55.9	145.6	53.3	91.8	60.9	38.4	104.9	36.6
1955	59.4	147.9	56.1	94.2	63.1	40.2	106.1	37.9
1956	63.0	144.3	60.2	94.4	66.7	43.7	104.6	41.7
1957	65.7	139.5	61.3	92.7	70.9	47.1	107.2	43.9
1958	70.0	138.8	61.4	92.4	75.8	50.5	114.1	44.2
1959	74.3	137.9	64.1	93.3	79.6	53.9	115.8	46.5
1960	76.7	134.5	66.0	93.0	82.5	57.0	116.3	49.1
1961	79.9	132.3	67.6	93.1	85.8	60.4	118.2	51.1
1962	82.7	130.2	69.6	93.5	88.4	63.5	118.7	53.5
1963	83.4	127.4	71.2	93.3	89.4	65.5	117.2	55.9
1964	80.2	130.3	72.6	95.4	84.1	61.6	110.5	55.7
1965	79.4	122.5	75.2	93.8	84.6	64.8	105.6	61.3
1966	80.7	123.6	77.9	95.9	84.1	65.2	103.5	63.0
1967	83.4	125.0	79.9	97.6	85.5	66.7	104.4	63.9
1968	84.6	120.3	82.3	97.2	87.1	70.4	102.8	68.4
1969	85.9	116.1	83.4	96.2	89.3	74.0	103.0	71.8
1970	91.0	117.6	82.6	96.3	94.6	77.4	110.2	70.3
1971	92.6	109.5	84.3	94.2	98.3	84.5	109.8	76.9
1972	95.0	105.6	87.6	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.7	81.7
1974	99.4	110.7	95.9	101.7	97.7	89.8	103.6	86.6
1975	102.2	108.4	95.2	100.4	101.8	94.3	107.3	87.9
1976	104.1	107.5	97.2	101.2	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	100.6	101.8	101.4	99.8	100.6	99.4	101.2
1979	103.1	99.3	102.7	101.5	101.6	103.8	100.4	103.4
1980	105.3	98.5	104.6	102.2	103.0	107.0	100.7	106.2

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TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	35.0	111.1	34.9	27.4	110.8	24.7
1949	35.5	121.9	39.9	98.8	35.9	29.1	89.0	32.7
1950	37.2	134.6	45.8	109.6	34.0	27.7	81.4	34.0
1951	39.1	129.8	52.6	108.4	36.0	30.1	74.3	40.5
1952	38.4	122.9	56.7	104.9	36.6	31.2	67.7	46.1
1953	37.7	122.2	59.7	105.4	35.8	30.8	63.1	48.8
1954	35.7	108.4	61.3	96.2	37.1	32.9	58.2	56.5
1955	39.7	113.8	64.6	101.0	39.3	34.9	61.4	56.8
1956	40.4	110.8	68.0	100.0	40.4	36.5	59.4	61.4
1957	39.4	103.5	70.1	95.6	41.3	38.1	56.3	67.7
1958	38.8	96.5	70.9	90.9	42.7	40.2	54.8	73.5
1959	42.5	103.3	73.4	96.5	44.1	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.2	44.0	41.4	55.8	74.2
1961	41.7	96.6	73.3	91.2	45.7	43.2	56.8	75.9
1962	44.3	98.9	73.8	93.1	47.6	44.8	60.0	74.7
1963	56.1	97.0	74.1	91.7	61.2	57.9	75.7	76.4
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.6	76.0
1965	65.5	104.5	77.2	98.2	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.2	102.7	69.3	65.2	87.6	74.4
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.7	105.7	68.7	65.0	84.7	76.7
1969	74.4	111.1	88.0	105.7	70.4	67.0	84.6	79.2
1970	78.7	105.9	88.9	101.9	77.2	74.3	88.5	84.0
1971	81.9	105.7	90.5	102.1	80.2	77.5	90.6	85.6
1972	87.9	111.0	93.4	106.9	82.2	79.2	94.1	84.2
1973	91.4	112.3	95.9	108.4	84.3	81.4	95.3	85.4
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.8	94.2	81.2	82.1	78.2	105.0
1976	87.9	100.2	98.7	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	100.7	99.6	101.6	101.9	100.5	101.4
1979	102.9	97.5	100.5	98.2	104.8	105.5	102.3	103.1
1980	97.5	94.2	100.7	95.7	101.9	103.5	96.9	106.9

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TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	49.2	87.5	49.4	47.0	87.9	53.5
1949	43.1	89.9	46.6	85.3	50.5	47.9	92.4	51.8
1950	46.7	92.9	47.0	88.0	53.1	50.3	99.3	50.6
1951	49.4	92.1	51.1	87.9	56.3	53.7	96.7	55.5
1952	50.5	94.4	51.1	89.9	56.2	53.5	99.0	54.1
1953	51.1	96.4	50.8	91.6	55.7	52.9	100.6	52.6
1954	48.0	89.8	48.5	85.5	56.1	53.4	98.9	54.0
1955	51.5	94.5	49.9	89.8	57.3	54.5	103.2	52.8
1956	52.6	94.1	51.6	89.7	58.6	55.9	102.0	54.8
1957	51.9	92.6	51.2	88.3	58.7	56.0	101.4	55.2
1958	50.9	88.4	49.3	84.4	60.3	57.6	103.3	55.8
1959	54.2	95.0	50.0	90.3	60.0	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.3	62.8	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.8	62.8	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.9	62.8	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.3	64.5	61.7	105.4	58.5
1964	63.0	99.4	59.4	95.1	66.2	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.8	68.6	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.5	71.6	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.4	71.1	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.3	73.5	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.4	73.3	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.2	71.0	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.1	71.6	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.3	84.2	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.8	87.1	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.2	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.2	101.4	101.2	104.6	104.6	104.4	100.2
1979	108.1	99.1	101.6	99.4	108.8	109.1	106.4	102.5
1980	103.9	98.2	102.4	98.7	105.3	105.8	101.5	104.3

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TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	85.9	109.7	41.1	37.8	52.5	71.9
1949	39.6	107.3	77.6	98.7	40.2	36.9	51.1	72.3
1950	42.3	115.8	72.0	103.5	40.9	36.5	58.7	62.2
1951	42.8	119.5	69.1	105.5	40.6	35.8	62.0	57.8
1952	42.4	114.4	64.1	100.5	42.1	37.0	66.0	56.0
1953	40.4	111.3	59.6	97.1	41.6	36.3	67.7	53.6
1954	39.0	102.8	56.3	90.0	43.3	37.9	69.3	54.7
1955	45.2	107.4	55.1	93.1	48.5	42.1	82.0	51.3
1956	45.3	104.4	53.4	90.4	50.1	43.4	84.7	51.2
1957	42.7	94.1	49.8	82.0	52.1	45.4	85.8	52.9
1958	39.7	89.8	47.1	78.1	50.8	44.2	84.2	52.5
1959	47.0	97.9	45.9	83.8	56.1	48.0	102.4	46.9
1960	43.9	92.5	48.0	80.1	54.8	47.5	91.5	52.0
1961	42.1	87.9	48.5	76.8	54.9	48.0	86.9	55.2
1962	42.3	89.1	49.7	78.0	54.2	47.4	85.0	55.8
1963	52.7	87.4	52.2	77.2	68.3	60.4	101.0	59.8
1964	64.0	90.5	54.1	80.0	79.9	70.7	118.3	59.7
1965	71.7	93.4	57.3	82.9	86.4	76.7	125.1	61.3
1966	70.0	94.5	61.0	84.5	82.9	74.1	114.7	64.6
1967	71.9	91.8	62.7	82.9	86.8	78.4	114.7	68.3
1968	74.8	91.3	64.6	82.9	90.2	81.9	115.9	70.7
1969	73.8	94.8	68.3	86.4	85.4	77.8	108.1	72.0
1970	75.7	89.2	70.5	83.3	90.9	84.9	107.4	79.1
1971	77.8	92.3	73.3	86.3	90.2	84.3	106.1	79.4
1972	88.6	101.1	77.9	93.7	94.6	87.7	113.7	77.1
1973	93.2	105.0	83.0	98.0	95.1	88.7	112.2	79.1
1974	90.9	96.6	90.3	94.6	96.1	94.0	100.7	93.4
1975	86.0	81.9	92.0	85.1	101.0	105.0	93.4	112.4
1976	94.9	94.1	9[illegible].6	94.6	100.4	100.9	99.2	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.4	106.0	105.0	96.5	97.0	95.6	101.5
1979	103.7	106.4	111.0	107.9	96.1	97.5	93.4	104.4
1980	91.2	95.3	112.0	100.7	90.6	95.7	81.4	117.5

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TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	53.8	73.5	58.3	55.6	79.6	69.8
1949	40.5	69.3	52.7	66.7	60.7	58.4	76.8	76.1
1950	49.1	81.8	54.1	77.6	63.3	60.1	90.8	66.2
1951	46.9	79.2	57.3	75.7	61.9	59.2	81.8	72.3
1952	51.9	79.7	57.8	76.3	68.1	65.2	89.8	72.6
1953	50.4	81.6	58.2	77.9	64.6	61.7	86.6	71.3
1954	48.3	74.3	57.0	71.5	67.6	65.1	84.8	76.7
1955	56.2	81.0	58.8	77.6	72.4	69.3	95.6	72.5
1956	56.5	82.1	60.6	78.7	71.8	68.8	93.2	73.8
1957	53.9	80.5	60.5	77.3	69.7	66.9	89.1	75.1
1958	49.1	76.7	59.5	73.9	66.5	64.0	82.5	77.6
1959	56.1	83.9	60.0	80.2	69.9	66.8	93.5	71.5
1960	55.3	82.4	60.4	79.0	70.1	67.1	91.6	73.3
1961	53.3	79.2	60.1	76.1	70.1	67.3	88.8	75.8
1962	57.6	83.8	60.7	80.1	71.9	68.8	94.9	72.5
1963	60.2	83.7	62.1	80.3	75.0	71.9	96.9	74.2
1964	65.3	87.6	63.3	83.8	77.9	74.6	103.2	72.2
1965	73.7	93.3	65.9	89.1	82.8	79.0	111.9	70.6
1966	78.0	98.7	70.8	94.3	82.7	79.0	110.3	71.7
1967	74.0	96.5	73.6	92.8	79.8	76.7	100.6	76.3
1968	79.5	99.2	75.4	95.3	83.4	80.1	105.3	76.1
1969	84.8	100.7	79.1	97.1	87.3	84.2	107.2	78.6
1970	72.8	93.2	82.6	91.4	79.7	78.1	88.2	88.6
1971	76.3	95.8	83.7	93.7	81.4	79.7	91.2	87.4
1972	92.2	104.9	87.6	102.0	90.4	88.0	105.3	83.6
1973	94.5	109.5	93.2	106.8	88.5	86.3	101.4	85.2
1974	91.3	103.8	98.3	102.9	88.7	88.0	92.9	94.7
1975	80.2	86.3	95.6	87.9	91.3	92.9	83.9	110.8
1976	92.2	92.8	97.8	93.6	98.5	99.4	94.3	105.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.8	104.9	105.7	103.3	103.2	104.1	99.1
1979	112.6	104.0	108.8	104.8	107.4	108.3	103.5	104.6
1980	105.3	98.1	109.3	100.0	105.2	107.3	96.3	111.4

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TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.1	59.5	50.7	44.3	73.5	60.3
1949	30.1	64.1	42.1	57.3	52.5	47.0	71.6	65.7
1950	39.2	70.4	43.3	61.9	63.3	55.6	90.5	61.4
1951	41.9	73.8	45.3	64.8	64.6	56.7	92.4	61.4
1952	38.5	72.2	46.5	64.2	60.1	53.4	82.9	64.4
1953	40.8	76.5	47.5	67.4	60.6	53.4	85.9	62.1
1954	41.9	75.5	48.8	67.3	62.3	55.5	85.8	64.7
1955	46.2	79.3	50.8	70.4	65.5	58.2	90.9	64.1
1956	47.5	81.4	53.1	72.6	65.4	58.4	89.5	65.3
1957	44.0	81.1	54.8	73.1	60.2	54.2	80.3	67.6
1958	44.3	79.6	55.4	72.4	61.2	55.6	80.0	69.6
1959	50.1	84.1	56.5	75.7	66.2	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.7	64.1	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.6	66.8	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.2	68.4	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.2	68.8	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.7	72.8	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.4	73.9	67.6	94.7	71.4
1966	66.7	97.1	70.0	89.0	75.0	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.8	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	93.0	77.3	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.6	82.5	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.4	78.6	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	84.9	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.7	92.7	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.3	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.0	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.0	104.1	101.9	100.3	101.2	98.2	103.1
1979	105.2	101.2	110.0	103.8	101.3	103.9	95.6	108.7
1980	105.7	98.9	115.8	103.9	101.8	106.9	91.3	117.1

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TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	52.4	67.0	64.2	61.0	82.1	74.3
1949	45.1	69.5	52.2	66.1	68.3	65.0	86.4	75.2
1950	45.5	69.6	52.5	66.3	68.7	65.4	86.7	75.4
1951	46.5	71.0	53.4	67.5	68.8	65.5	87.0	75.2
1952	47.4	71.8	52.5	68.1	69.6	66.0	90.3	73.0
1953	49.4	74.1	51.4	69.7	70.8	66.7	96.1	69.4
1954	52.0	74.2	50.2	69.6	74.6	70.0	103.5	67.7
1955	55.3	76.3	50.2	71.3	77.5	72.4	110.0	65.8
1956	57.4	78.7	50.2	73.3	78.4	73.0	114.4	63.8
1957	58.2	79.0	49.7	73.4	79.3	73.7	117.2	62.9
1958	56.7	78.0	49.6	72.7	78.1	72.7	114.4	63.5
1959	61.0	80.0	49.9	74.3	82.0	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.4	81.8	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.6	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.5	85.1	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.5	91.0	85.8	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.8	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.4	96.7	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.6	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.3	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.4	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.5	104.6	104.5	99.4	99.4	99.3	100.1
1979	106.4	109.0	108.5	108.9	97.7	97.6	98.1	99.5
1980	109.1	111.9	111.0	111.7	97.7	97.5	98.3	99.2

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TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	29.3	47.6	36.3	28.1	59.0	47.7
1949	16.9	57.5	31.0	46.2	36.6	29.5	54.6	54.0
1950	20.3	59.8	33.1	48.5	41.8	33.9	61.3	55.4
1951	21.7	65.9	36.6	53.5	40.5	32.9	59.2	55.6
1952	21.9	67.3	39.5	55.7	39.3	32.5	55.3	58.8
1953	23.4	71.0	41.9	58.8	39.9	33.0	56.0	59.0
1954	24.7	69.5	43.8	58.9	41.9	35.5	56.3	63.1
1955	28.4	71.5	45.7	60.9	46.8	39.8	62.2	64.0
1956	29.8	73.7	48.0	63.1	47.1	40.4	62.0	65.2
1957	31.1	74.7	50.1	64.7	48.0	41.5	61.9	67.1
1958	30.5	73.1	51.8	64.6	47.2	41.7	58.9	70.8
1959	35.8	75.3	53.4	66.6	53.7	47.5	67.0	70.9
1960	35.5	77.1	53.9	67.8	52.4	46.1	65.9	69.9
1961	37.3	77.2	55.1	68.4	54.5	48.3	67.6	71.4
1962	39.9	79.1	56.4	70.1	56.9	50.4	70.8	71.2
1963	44.7	80.5	57.4	71.3	62.6	55.5	77.9	71.2
1964	48.4	81.9	59.0	72.9	66.4	59.1	82.0	72.0
1965	52.8	85.2	62.3	76.2	69.3	62.0	84.8	73.1
1966	56.2	90.0	66.0	80.6	69.8	62.5	85.2	73.3
1967	57.3	93.3	69.5	84.0	68.2	61.4	82.5	74.4
1968	65.2	96.7	72.1	87.1	74.9	67.4	90.5	74.5
1969	68.0	99.1	75.0	89.8	75.7	68.6	90.7	75.6
1970	68.8	97.9	77.5	90.0	76.4	70.2	88.8	79.1
1971	73.0	94.5	79.1	88.5	82.4	77.2	92.3	83.7
1972	79.9	94.4	79.9	88.8	89.9	84.6	99.9	84.7
1973	87.6	97.1	81.1	90.9	96.4	90.3	108.0	83.6
1974	85.4	98.5	85.9	93.7	91.2	86.7	99.5	87.2
1975	85.0	93.3	89.4	91.8	92.6	91.1	95.1	95.8
1976	95.1	96.9	94.2	95.9	99.3	98.2	101.0	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.5	103.9	103.0	100.2	100.7	99.4	101.4
1979	109.0	104.0	108.2	105.6	103.2	104.8	100.8	104.0
1980	107.2	103.6	112.4	107.0	100.2	103.5	95.4	108.4

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TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.4	108.1	40.7	63.2	59.3	34.6	91.9	37.7
1949	40.2	104.4	42.7	63.6	63.1	38.5	94.0	40.9
1950	43.4	103.6	44.0	64.4	67.4	41.9	98.6	42.5
1951	45.2	109.7	45.8	67.6	66.9	41.2	98.7	41.7
1952	45.6	110.4	48.2	69.7	65.5	41.4	94.6	43.7
1953	47.6	114.3	51.5	73.4	64.9	41.7	92.4	45.1
1954	47.5	113.1	53.3	74.5	63.8	42.0	89.0	47.2
1955	52.6	112.7	55.1	75.7	69.5	46.7	95.5	48.9
1956	54.2	112.4	57.0	77.1	70.3	48.2	95.1	50.7
1957	52.6	110.6	59.0	78.2	67.2	47.5	89.1	53.4
1958	53.7	107.2	59.5	77.6	69.2	50.1	90.2	55.5
1959	60.6	103.4	59.3	76.3	79.5	58.6	102.2	57.3
1960	62.2	101.8	60.4	76.3	81.5	61.1	103.0	59.4
1961	64.5	97.2	61.8	75.3	85.7	66.4	104.4	63.6
1962	69.6	94.6	62.9	74.9	92.9	73.6	110.7	66.5
1963	71.8	90.8	63.5	73.8	97.4	79.1	113.2	69.9
1964	73.6	88.6	63.9	73.2	100.6	83.1	115.1	72.2
1965	77.4	89.3	65.2	74.2	104.4	86.8	118.7	73.1
1966	79.1	90.9	66.9	75.8	104.2	87.0	118.2	73.6
1967	78.9	91.2	69.9	77.7	101.5	86.5	112.8	76.7
1968	81.1	92.1	72.9	79.9	101.5	88.0	111.2	79.2
1969	77.7	89.9	75.5	80.5	96.5	86.4	102.9	84.0
1970	89.4	95.0	78.2	84.1	106.3	94.1	114.3	82.3
1971	94.6	97.0	81.1	86.6	109.2	97.5	116.7	83.5
1972	91.8	96.8	82.6	87.6	104.8	94.8	111.1	85.3
1973	107.0	95.1	83.7	87.7	122.0	112.5	127.9	88.0
1974	102.5	96.2	87.7	90.7	113.0	106.5	116.8	91.2
1975	91.8	93.1	92.0	92.4	99.3	98.5	99.7	98.8
1976	101.1	96.7	96.6	96.6	104.6	104.5	104.7	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.8	102.3	102.9	101.6	99.8	102.2	97.6
1979	111.5	106.4	104.3	104.8	106.4	104.8	106.9	98.0
1980	105.4	95.6	107.3	102.9	102.4	110.2	98.2	112.2

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TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	28.1	39.1	58.5	54.1	81.4	66.5
1949	20.9	37.7	28.8	35.7	58.5	55.5	72.6	76.4
1950	23.5	43.8	30.3	40.8	57.6	53.6	77.6	69.1
1951	30.3	46.7	33.0	43.7	69.4	64.9	91.7	70.7
1952	30.6	47.3	34.9	44.6	68.6	64.6	87.6	73.8
1953	30.3	50.0	36.6	47.0	64.4	60.5	82.9	73.1
1954	27.2	45.0	37.6	43.4	62.6	60.4	72.2	83.6
1955	30.1	52.0	39.4	49.2	61.3	58.0	76.5	75.8
1956	29.8	51.1	41.3	49.0	60.8	58.3	72.1	80.8
1957	29.6	51.9	42.4	49.8	59.4	57.0	69.8	81.7
1958	28.7	46.5	43.6	46.0	62.4	61.6	65.7	93.7
1959	35.7	52.7	45.5	51.2	69.9	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.5	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.3	78.3	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.5	83.7	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.5	86.1	82.9	100.1	82.8
1965	55.7	67.8	54.6	64.9	85.8	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.1	86.3	82.3	103.5	79.5
1967	60.7	73.5	61.4	70.8	85.7	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.1	88.8	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.4	93.0	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.3	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.2	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.1	95.9	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.2	100.3	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.7	94.2	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.9	105.5	105.9	99.7	99.7	100.1	99.6
1979	106.4	108.2	108.6	108.3	98.3	98.4	98.0	100.4
1980	100.6	98.2	106.7	100.1	100.6	102.5	94.3	108.6

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TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	67.1	149.4	69.2	64.0	154.1	41.6
1949	91.9	150.6	66.9	140.2	65.6	61.0	137.3	44.4
1950	91.3	156.0	68.5	145.1	63.0	58.6	133.4	43.9
1951	97.8	147.1	72.6	138.4	70.6	66.4	134.6	49.3
1952	86.2	154.7	72.6	144.8	59.5	55.7	118.7	46.9
1953	91.3	154.0	72.8	144.3	63.3	59.2	125.4	47.2
1954	83.9	145.0	71.1	136.3	61.5	57.8	118.0	49.0
1955	88.1	153.2	73.6	143.8	61.3	57.5	119.7	48.1
1956	88.7	151.0	75.8	142.3	62.3	58.7	117.0	50.2
1957	86.9	146.7	74.8	138.6	62.7	59.2	116.1	51.0
1958	82.1	139.2	72.9	131.8	62.3	59.0	112.6	52.4
1959	100.6	148.6	73.4	139.9	71.9	67.7	136.9	49.4
1960	90.6	141.2	74.6	133.3	67.9	64.1	121.4	52.8
1961	91.4	140.9	75.4	133.1	68.7	64.9	121.2	53.5
1962	99.0	142.0	76.6	134.2	73.8	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.6	76.9	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.4	79.3	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.7	82.5	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.7	82.1	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.3	78.0	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.7	79.5	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	102.1	101.2	102.0	99.2	99.1	100.0	99.1
1979	98.2	96.6	101.5	97.3	101.0	101.7	96.8	105.0
1980	96.7	92.1	102.1	93.4	103.4	105.0	94.6	110.9

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TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	39.4	69.8	68.4	58.5	121.3	48.2
1949	44.6	75.0	40.4	65.2	68.4	59.4	110.2	53.9
1950	53.4	81.9	42.2	70.7	75.5	65.2	126.5	51.5
1951	57.3	88.3	45.2	76.2	75.3	64.9	126.7	51.2
1952	55.0	84.3	46.7	73.6	74.7	65.3	117.7	55.5
1953	58.2	86.4	48.2	75.5	77.1	67.4	120.8	55.8
1954	56.7	81.8	49.3	72.5	78.2	69.3	115.1	60.2
1955	65.4	88.4	52.4	78.1	83.7	73.9	124.9	59.2
1956	64.3	90.3	56.6	80.6	79.9	71.3	113.8	62.6
1957	62.5	87.6	59.4	79.4	78.8	71.4	105.3	67.8
1958	61.0	82.2	60.6	75.8	80.5	74.2	100.6	73.7
1959	69.0	90.2	62.6	82.1	84.1	76.5	110.4	69.3
1960	67.5	89.2	64.0	81.9	82.3	75.6	105.4	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.0	75.7
1962	71.3	87.9	66.5	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.1	83.5	92.7	86.5	113.7	76.1
1964	82.6	92.6	69.6	86.1	96.0	89.3	118.8	75.2
1965	85.6	95.2	71.9	88.6	96.6	90.0	119.1	75.6
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.1	77.4
1967	83.7	94.5	77.5	90.1	92.9	88.5	108.0	82.0
1968	87.3	96.1	78.8	91.6	95.4	90.9	110.8	82.0
1969	92.5	98.9	81.4	94.4	98.0	93.5	113.7	82.3
1970	88.9	95.6	83.4	92.5	96.2	93.0	106.6	87.2
1971	90.6	97.2	84.7	93.9	96.4	93.2	106.9	87.2
1972	99.4	103.0	87.3	98.9	100.5	96.5	113.9	84.7
1973	107.3	108.2	90.8	103.7	103.4	99.1	118.1	83.9
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.6
1975	91.7	92.4	95.7	93.2	98.3	99.2	95.8	103.6
1976	100.6	95.8	97.7	96.3	104.5	105.0	103.0	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.0	104.3	104.8	104.1	104.0	104.7	99.3
1979	111.4	106.7	108.9	107.3	103.8	104.4	102.3	102.1
1980	100.5	99.3	111.4	102.4	98.1	101.3	90.3	112.2

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TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	40.0	84.3	96.6	80.1	203.7	39.3
1949	72.4	85.7	41.0	73.3	98.7	84.4	176.5	47.8
1950	85.6	99.7	42.6	83.7	102.3	85.9	200.9	42.8
1951	102.6	110.8	46.5	92.8	110.6	92.6	220.8	41.9
1952	91.5	102.1	49.2	87.4	104.7	89.6	185.8	48.2
1953	105.2	110.9	51.7	94.4	111.4	94.9	203.4	46.6
1954	82.2	92.8	52.8	81.9	100.4	88.6	155.7	56.9
1955	101.0	106.5	54.9	92.3	109.5	94.8	184.1	51.5
1956	99.8	108.5	57.9	94.6	105.4	91.9	172.2	53.4
1957	100.6	105.1	61.1	93.2	108.0	95.7	164.8	58.1
1958	76.4	86.9	62.4	80.7	94.7	87.8	122.3	71.8
1959	84.3	93.5	63.5	85.7	98.3	90.1	132.6	67.9
1960	82.8	94.5	65.6	87.0	95.2	87.7	126.3	69.4
1961	78.9	88.7	66.8	83.3	94.8	88.9	118.1	75.3
1962	83.9	91.7	67.4	85.5	98.0	91.5	124.5	73.5
1963	90.4	94.1	68.3	87.5	103.3	96.1	132.3	72.7
1964	102.2	101.1	70.1	93.1	109.8	101.1	145.8	69.3
1965	110.6	107.7	72.5	98.5	112.3	102.7	152.6	67.3
1966	118.0	111.3	76.4	102.2	115.4	106.0	154.4	68.7
1967	111.6	106.7	80.2	100.1	111.5	104.6	139.1	75.2
1968	111.1	107.6	82.9	101.6	109.3	103.2	134.0	77.0
1969	112.5	111.5	85.2	105.0	107.1	100.9	132.0	76.4
1970	103.1	104.4	87.7	100.3	102.7	98.7	117.5	84.0
1971	100.4	96.5	88.4	94.5	106.2	104.0	113.6	91.6
1972	107.1	99.7	89.5	97.2	110.2	107.4	119.6	89.8
1973	125.9	109.0	89.6	104.2	120.8	115.5	140.6	82.2
1974	127.4	109.9	92.7	105.7	120.6	115.9	137.4	84.4
1975	96.0	93.7	96.0	94.2	101.9	102.5	100.0	102.5
1976	100.0	96.5	98.4	97.0	103.2	103.7	101.7	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.6	103.8	105.1	104.6	107.4	97.4
1979	113.3	106.1	102.9	105.4	107.5	106.8	110.1	97.0
1980	95.5	93.2	104.1	96.0	99.6	102.5	91.8	111.7

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TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	65.8	26.4	57.7	66.7	58.5	146.0	40.1
1949	35.2	58.0	27.1	51.7	68.1	60.8	129.8	46.8
1950	42.0	66.9	29.9	59.4	70.7	62.7	140.3	44.7
1951	45.8	74.7	34.6	66.6	68.8	61.3	132.3	46.3
1952	48.9	75.3	36.9	67.6	72.3	64.9	132.3	49.0
1953	53.9	82.9	39.5	74.1	72.7	65.0	136.2	47.7
1954	49.4	73.9	40.7	67.4	73.4	66.9	121.5	55.0
1955	52.8	78.3	43.8	71.6	73.8	67.4	120.6	55.9
1956	53.7	78.8	46.9	72.6	73.9	68.1	114.6	59.5
1957	54.8	80.0	48.5	73.9	74.2	68.6	113.0	60.7
1958	49.8	72.3	49.1	68.1	73.2	68.9	101.5	67.9
1959	55.6	76.7	51.2	72.0	77.2	72.4	108.5	66.8
1960	55.6	76.9	52.3	72.3	76.9	72.3	106.3	68.0
1961	55.8	73.8	52.7	69.9	79.9	75.6	105.9	71.4
1962	60.8	78.1	54.0	73.6	82.6	77.9	112.7	69.1
1963	63.4	80.7	55.5	76.0	83.5	78.6	114.2	68.8
1964	67.5	83.2	58.8	78.7	85.8	81.1	114.7	70.7
1965	74.6	89.0	62.9	84.2	88.6	83.7	118.6	70.6
1966	81.7	96.8	67.0	91.3	89.5	84.4	121.9	69.2
1967	83.5	99.6	70.9	94.3	88.6	83.8	117.9	71.1
1968	88.3	103.8	74.9	98.4	89.8	85.1	117.9	72.2
1969	93.3	106.9	77.1	101.4	92.0	87.2	121.0	72.1
1970	85.2	97.9	78.0	94.2	90.4	87.0	109.2	79.7
1971	81.7	92.5	78.9	90.0	90.8	88.3	103.6	85.2
1972	89.9	98.2	81.0	95.0	94.6	91.5	110.9	82.5
1973	100.0	105.7	86.3	102.1	97.9	94.6	115.9	81.6
1974	90.4	103.0	92.7	101.1	89.4	87.7	97.4	90.0
1975	81.3	90.6	93.6	91.1	89.2	89.8	86.9	103.3
1976	92.0	95.3	96.6	95.5	96.3	96.6	95.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	105.4	104.6	105.3	99.2	99.0	99.7	99.3
1979	110.3	108.2	109.9	108.5	101.7	102.0	100.3	101.6
1980	101.0	101.2	111.7	103.2	97.9	99.7	90.4	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	28.6	55.8	67.4	59.1	131.3	45.0
1949	33.5	52.9	28.9	47.5	70.4	63.2	115.6	54.7
1950	35.4	56.9	30.2	50.9	69.5	62.2	117.1	53.1
1951	46.0	70.7	33.8	62.4	73.7	65.0	136.1	47.8
1952	50.5	72.6	35.8	64.4	78.4	69.5	140.8	49.4
1953	49.3	73.5	37.7	65.5	75.4	67.1	130.8	51.3
1954	44.2	64.6	38.4	58.8	75.2	68.3	115.0	59.4
1955	45.1	67.8	40.2	61.6	73.2	66.6	112.1	59.4
1956	49.9	73.9	42.5	66.9	74.6	67.5	117.5	57.5
1957	47.1	72.7	43.8	66.2	71.1	64.8	107.5	60.3
1958	39.8	60.9	43.7	57.0	69.8	65.3	91.1	71.8
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.8	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.8	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.4	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.7	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.8	85.9	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.1	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.0	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.6	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.5	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.1	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.4	106.7	108.0	99.9	99.5	101.1	98.4
1979	115.5	114.7	116.0	115.0	100.5	100.7	99.6	101.1
1980	115.6	114.1	120.9	115.6	100.0	101.3	95.6	106.0

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TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.8	46.3	34.6	31.4	59.9	52.5
1949	14.7	43.9	26.4	40.5	36.4	33.6	55.8	60.2
1950	17.9	52.2	27.0	47.3	37.9	34.3	66.3	51.7
1951	21.3	59.1	29.3	53.3	40.0	36.1	72.9	49.5
1952	26.1	63.7	30.4	57.2	45.7	41.0	85.9	47.8
1953	27.1	71.3	31.5	63.5	42.7	38.0	86.0	44.2
1954	24.3	61.9	31.4	56.0	43.4	39.2	77.5	50.6
1955	26.1	65.4	32.3	59.0	44.3	39.9	80.8	49.4
1956	28.4	69.9	33.8	62.8	45.2	40.7	84.1	48.4
1957	29.5	70.0	34.4	63.0	46.8	42.2	85.7	49.2
1958	27.8	64.5	34.3	58.6	47.4	43.1	81.1	53.1
1959	33.3	73.1	35.3	65.7	50.7	45.6	94.4	48.3
1960	35.0	75.5	37.7	68.1	51.4	46.3	92.8	49.9
1961	36.9	76.2	40.0	69.1	53.4	48.5	92.3	52.5
1962	41.6	81.3	43.9	74.0	56.2	51.1	94.6	54.0
1963	45.6	80.0	45.7	73.4	62.1	57.0	99.7	57.2
1964	48.2	80.0	48.4	73.9	65.2	60.3	99.6	60.5
1965	57.4	87.0	53.5	80.6	71.2	66.0	107.2	61.5
1966	66.2	100.2	61.9	92.9	71.3	66.1	106.9	61.8
1967	68.8	101.2	67.2	94.7	72.6	68.0	102.4	66.4
1968	72.6	102.5	71.2	96.6	75.2	70.8	101.9	69.5
1969	78.6	104.6	76.3	99.3	79.2	75.2	103.1	72.9
1970	73.2	98.3	79.0	94.7	77.3	74.5	92.7	80.3
1971	74.0	92.1	79.2	89.7	82.5	80.3	93.4	86.0
1972	83.1	96.8	81.4	93.9	88.5	85.9	102.0	84.2
1973	90.7	105.0	89.8	102.1	88.8	86.4	101.0	85.5
1974	84.0	103.3	94.5	101.6	82.7	81.3	88.9	91.5
1975	77.8	88.9	91.9	89.5	87.0	87.5	84.7	103.3
1976	86.7	93.5	95.2	93.8	92.4	92.8	91.1	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.6	106.3	106.5	106.6	106.6	106.9	99.7
1979	121.4	112.6	114.2	112.9	107.5	107.8	106.3	101.4
1980	120.5	111.8	119.0	113.2	106.5	107.7	101.3	106.4

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TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	35.4	55.7	41.7	37.1	65.8	56.4
1949	23.6	60.2	35.1	53.9	43.8	39.2	67.3	58.2
1950	31.2	65.5	36.4	58.1	53.7	47.6	85.7	55.6
1951	34.2	78.8	40.3	68.9	49.6	43.4	84.7	51.2
1952	39.0	91.6	42.4	78.9	49.4	42.6	91.9	46.3
1953	47.6	106.1	44.2	90.0	52.9	44.9	107.7	41.7
1954	43.7	92.3	45.5	80.3	54.4	47.3	95.9	49.3
1955	51.7	99.8	48.2	86.5	59.7	51.8	107.1	48.3
1956	44.3	97.6	52.4	86.1	51.4	45.3	84.5	53.6
1957	47.3	99.4	54.0	87.9	53.8	47.6	87.6	54.3
1958	39.1	82.9	53.4	75.6	51.7	47.1	73.3	64.4
1959	43.7	87.9	54.2	79.5	55.0	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.7	57.1	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.9	57.2	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.6	61.8	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.9	67.6	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.3	70.8	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.5	74.2	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.9	73.5	67.3	101.7	66.1
1967	73.5	108.1	79.8	101.0	72.8	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.7	77.1	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.0	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.7	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.3	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	106.1	106.5	106.2	98.1	98.2	97.8	100.4
1979	98.7	107.4	114.9	109.3	90.3	91.9	85.9	107.0
1980	85.9	96.4	121.9	102.8	83.6	89.1	70.5	126.4

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TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	26.1	42.4	43.1	37.9	69.9	54.2
1949	17.8	43.5	26.4	38.8	45.9	40.9	67.4	60.6
1950	20.9	47.3	28.2	42.0	49.7	44.2	74.1	59.7
1951	25.6	57.6	32.2	50.8	50.3	44.4	79.5	55.8
1952	29.4	63.3	34.0	55.6	52.9	46.5	86.6	53.7
1953	32.0	68.9	35.5	60.2	53.2	46.5	90.3	51.5
1954	31.5	61.8	35.7	54.7	57.6	51.0	88.3	57.7
1955	33.5	62.7	37.9	55.9	59.9	53.3	88.2	60.4
1956	35.4	65.7	40.6	58.7	60.4	54.0	87.2	61.9
1957	34.4	65.8	41.8	59.0	58.3	52.2	82.1	63.6
1958	34.1	61.2	41.9	55.5	61.4	55.6	81.4	68.4
1959	38.3	66.8	43.6	60.1	63.7	57.3	87.8	65.3
1960	39.6	68.2	45.7	61.6	64.3	58.1	86.7	67.0
1961	38.6	67.3	47.3	61.4	62.7	57.3	81.6	70.2
1962	43.1	69.4	49.0	63.4	67.9	62.0	87.9	70.6
1963	45.1	69.4	51.2	64.0	70.5	65.0	88.1	73.8
1964	46.3	69.9	53.3	64.9	71.4	66.2	86.8	76.3
1965	53.4	74.2	56.1	68.7	77.7	72.0	95.2	75.6
1966	61.3	83.2	61.0	76.6	80.1	73.7	100.6	73.3
1967	63.2	85.9	65.5	79.7	79.3	73.6	96.5	76.3
1968	67.0	86.4	68.3	80.8	82.9	77.6	98.0	79.1
1969	74.4	89.5	72.4	84.1	88.5	83.2	102.9	80.9
1970	65.5	85.1	75.8	82.2	79.6	76.9	86.3	89.1
1971	66.0	79.5	77.5	78.9	83.7	83.1	85.2	97.5
1972	73.7	84.1	80.5	82.9	88.8	87.6	91.6	95.7
1973	84.2	91.4	85.8	89.6	94.0	92.2	98.2	93.9
1974	89.0	96.0	92.1	94.7	94.0	92.8	96.6	96.0
1975	84.9	87.3	92.6	89.0	95.5	97.3	91.8	106.0
1976	91.4	92.8	96.3	93.9	97.3	98.5	94.9	103.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.6	105.1	106.4	101.5	101.2	102.7	98.6
1979	112.0	112.6	109.3	111.7	100.3	99.5	102.5	97.1
1980	110.3	113.2	111.9	113.0	97.6	97.4	98.6	98.8

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TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	46.6	88.1	45.7	40.2	86.4	46.5
1949	36.2	89.7	47.8	80.4	45.0	40.3	75.6	53.3
1950	41.1	95.0	52.6	85.6	48.0	43.2	78.1	55.3
1951	43.1	95.7	60.9	88.0	48.9	45.0	70.7	63.6
1952	44.1	93.4	70.1	88.3	50.0	47.3	63.0	75.1
1953	45.8	99.3	76.8	94.4	48.5	46.1	59.6	77.4
1954	43.9	90.6	79.3	88.3	49.8	48.5	55.4	87.6
1955	48.7	92.9	85.4	91.4	53.3	52.4	57.0	91.9
1956	49.0	93.6	90.9	93.2	52.5	52.3	53.9	97.1
1957	48.2	89.8	92.5	90.6	53.2	53.7	52.1	103.0
1958	47.4	86.1	92.6	87.8	54.0	55.1	51.2	107.7
1959	53.1	90.0	94.8	91.3	58.1	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.7	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.4	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.9	66.7	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.8	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.7	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.6	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.8	77.8	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.3	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.5	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.0	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	104.7	103.4	104.4	96.5	96.2	97.5	98.7
1979	102.4	101.5	105.7	102.1	100.3	100.9	96.9	104.2
1980	99.2	95.3	108.8	97.5	101.7	104.1	91.2	114.1

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Table VI

S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	75.2	102.6	77.4	88.6	84.9	73.3	97.1	75.5
1959	85.9	105.1	76.2	89.4	96.1	81.7	112.7	72.5
1960	87.3	112.3	78.7	94.3	92.6	77.8	111.0	70.1
1961	83.7	104.5	79.6	90.5	92.4	80.1	105.2	76.2
1962	86.2	104.7	79.4	90.5	95.2	82.4	108.6	75.8
1963	91.4	106.4	80.1	91.8	99.5	85.9	114.1	75.3
1964	103.8	115.8	82.3	97.1	106.8	89.6	126.2	71.0
1965	113.9	120.9	84.8	100.8	113.0	94.2	134.3	70.2
1966	116.6	119.4	88.9	102.5	113.8	97.7	131.1	74.5
1967	108.7	114.7	92.7	102.5	106.1	94.8	117.3	80.8
1968	112.0	116.1	95.5	104.7	107.0	96.5	117.3	82.3
1969	115.5	118.5	97.5	106.9	108.1	97.5	118.5	82.3
1970	103.5	112.4	99.3	105.2	98.3	92.0	104.1	88.3
1971	96.2	101.8	98.5	100.1	96.1	94.5	97.7	96.8
1972	103.2	103.2	98.3	100.6	102.6	100.0	105.0	95.2
1973	124.3	112.4	96.7	104.1	119.4	110.5	128.5	86.0
1974	134.3	112.2	97.6	104.4	128.6	119.8	137.6	87.0
1975	98.3	97.3	100.5	99.0	99.3	101.0	97.8	103.3
1976	102.8	99.1	101.8	100.5	102.3	103.8	101.0	102.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	102.4	98.1	100.1	110.9	108.4	113.2	95.8
1979	112.2	104.1	97.0	101.4	110.7	107.8	115.7	93.1
1980	92.5	103.3	95.7	99.3	93.1	89.5	96.6	92.6

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Table VI

S.I.C. 367 - ELECTRONIC COMPONENTS

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	15.7	44.2	17.3	32.3	48.7	35.6	90.8	39.2
1959	20.4	53.8	19.2	38.5	53.1	38.0	106.7	35.6
1960	21.7	58.3	21.7	42.1	51.6	37.3	100.2	37.2
1961	21.6	61.4	24.3	45.0	48.0	35.2	89.0	39.5
1962	25.8	67.1	27.8	49.7	51.9	38.5	92.8	41.5
1963	25.8	65.7	30.3	49.9	51.7	39.3	85.1	46.2
1964	27.5	66.6	33.9	51.9	53.0	41.3	81.2	50.8
1965	37.6	77.9	38.9	60.4	62.2	48.2	96.6	49.9
1966	48.7	98.7	47.0	75.6	64.4	49.3	103.6	47.6
1967	53.7	95.5	52.5	76.0	70.6	56.2	102.3	54.9
1968	52.3	95.1	56.7	77.6	67.4	54.9	92.2	59.6
1969	57.0	98.2	62.0	81.5	69.9	58.0	91.8	63.2
1970	54.0	90.7	65.6	78.7	68.7	59.6	82.3	72.4
1971	52.4	81.9	67.6	80.2	65.4	64.0	77.5	82.5
1972	64.4	89.4	70.7	80.1	80.4	72.0	91.0	79.1
1973	80.3	103.2	79.6	91.3	87.9	77.8	100.9	77.1
1974	77.4	104.4	86.6	95.4	81.1	74.2	89.4	83.0
1975	64.6	84.0	88.1	86.0	75.1	76.9	73.3	104.9
1976	82.8	91.5	93.3	92.4	89.6	90.5	88.8	101.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.4	109.6	107.9	108.7	106.1	105.3	106.9	98.5
1979	138.3	125.4	117.8	121.6	113.8	110.3	117.4	93.9
1980	142.5	132.1	127.4	129.7	109.8	107.8	111.9	96.4

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Table VII
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	99.6	99.3	100.5	98.8
II	98.1	98.8	96.8	102.1
III	98.2	99.2	96.4	102.9
IV	98.3	98.9	97.3	101.7
1981 I	99.2	99.8	98.0	101.8
Percent Change:	(Annual Rate)			
1980 IV	0.4	-1.2	3.7	-4.8
1981 I	3.6	3.8	3.1	0.7

2. Goods Producing Sector

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	99.2	101.9	100.0	102.0
II	96.1	100.3	93.3	107.6
III	93.8	98.3	89.9	109.3
IV	96.3	100.2	94.2	106.4
1981 I	97.4	101.3	95.7	105.9
Percent Change:	(Annual Rate)			
1980 IV	11.4	8.0	20.4	-10.3
1981 I	4.8	4.2	6.3	-2.0

3. Service Producing Sector

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	91.3	100.3	100.6	99.7
II	90.9	100.6	99.0	101.6
III	92.6	102.5	100.8	101.7
IV	91.1	100.7	99.3	101.4
1981 I	91.7	101.7	99.6	102.1
Percent Change:	(Annual Rate)			
1980 IV	-6.2	-6.6	-5.7	-1.0
1981 I	2.7	3.6	1.2	2.4

Table VII (Cont d)
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

4. Nonfinancial Corporate Business

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	100.8	100.0	103.5	96.6
II	99.8	99.8	99.9	99.9
III	101.3	101.5	100.9	100.6
IV	101.0	100.8	102.1	98.7
1981 I	n.a.	n.a.	n.a.	n.a.
Percent Change: (Annual Rate)				
1980 IV	-1.0	-2.9	4.8	-7.3
1981 I	n.a.	n.a.	n.a.	n.a.

5. Farming

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	111.6	115.2	108.4	106.3
II	116.6	123.9	110.3	112.3
III	100.2	105.2	95.9	109.7
IV	97.5	99.8	95.5	104.5
1981 I	98.7	101.8	95.8	106.2
Percent Change: (Annual Rate)				
1980 IV	-10.3	-19.1	-1.6	-17.8
1981 I	4.8	8.5	1.5	6.8

Table VII (Cont d)
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

6. Manufacturing Industry

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	101.1	102.0	98.6	103.5
II	98.3	100.7	92.0	109.4
III	97.3	100.3	89.6	111.9
IV	100.6	103.0	94.2	109.4
1981 I	101.1	103.5	94.7	109.2
Percent Change: (Annual Rate)				
1980 IV	14.2	11.4	21.7	-8.4
1981 I	1.8	1.6	2.5	-0.8

7. Nonfarm Nonmanufacturing Industry

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	98.1	97.2	100.3	96.9
II	97.0	96.8	97.8	99.1
III	98.5	98.4	99.0	99.4
IV	97.3	97.0	98.2	98.8
1981 I	98.3	98.1	99.0	99.1
Percent Change: (Annual Rate)				
1980 IV	-4.6	-5.5	-3.0	-2.5
1981 I	4.0	4.4	3.2	1.1

Note: Percent changes are average annual rates of change from the previous quarter. First quarter 1981 is preliminary. All series are revised to reflect the 1977 census benchmark revisions and definitional changes. (May 22, 1981).

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	36.4	80.9	40.2	68.4	53.2	45.0	90.6	49.6
1948 II	37.3	80.5	40.6	68.2	54.7	46.4	92.0	50.4
1948 III	37.3	81.4	41.0	69.0	54.1	45.8	90.9	50.4
1948 IV	37.8	81.0	41.5	68.9	54.9	46.7	91.2	51.2
1949 I	36.9	79.8	41.3	68.0	54.2	46.2	89.2	51.8
1949 II	36.4	79.0	41.6	67.5	53.9	46.1	87.4	52.7
1949 III	36.6	77.7	41.9	66.7	54.9	47.1	87.4	54.0
1949 IV	36.1	76.5	42.2	66.0	54.7	47.2	85.7	55.1
1950 I	37.8	76.7	42.2	66.1	57.1	49.2	89.6	54.9
1950 II	39.3	78.5	42.6	67.5	58.2	50.1	92.3	54.3
1950 III	40.9	80.4	43.0	68.9	59.3	50.9	94.9	53.6
1950 IV	41.5	81.0	43.6	69.5	59.7	51.2	95.2	53.8
1951 I	41.5	81.8	43.7	70.1	59.2	50.8	95.0	53.4
1951 II	41.8	81.9	44.2	70.4	59.5	51.1	94.7	53.9
1951 III	42.5	81.0	44.7	69.9	60.8	52.5	95.2	55.1
1951 IV	42.8	81.3	45.0	70.2	61.0	52.6	95.1	55.4
1952 I	43.0	81.8	45.1	70.6	60.9	52.5	95.2	55.2
1952 II	43.1	80.7	45.5	69.9	61.7	53.5	94.9	56.4
1952 III	43.5	80.9	45.8	70.1	62.0	53.7	95.0	56.6
1952 IV	44.7	83.0	46.2	71.7	62.3	53.9	96.8	55.6
1953 I	45.5	83.4	46.2	72.1	63.1	54.5	98.3	55.4
1953 II	45.9	83.1	46.6	71.9	63.8	55.2	98.5	56.1
1953 III	45.6	82.3	46.9	71.5	63.8	55.4	97.1	57.1
1953 IV	44.8	80.9	47.2	70.6	63.5	55.4	95.0	58.3
1954 I	44.2	80.6	47.3	70.4	62.8	54.9	93.5	58.7
1954 II	44.0	79.4	47.6	69.7	63.1	55.4	92.5	59.9
1954 III	44.6	79.1	47.9	69.6	64.2	56.4	93.3	60.5
1954 IV	45.6	79.8	48.2	70.1	65.0	57.2	94.6	60.4
1955 I	46.9	81.1	48.6	71.2	65.9	57.9	96.5	60.0
1955 II	47.9	82.0	49.1	71.9	66.6	58.5	97.7	59.9
1955 III	48.7	83.3	49.5	73.0	66.7	58.4	98.3	59.4
1955 IV	49.1	84.4	49.9	73.9	66.5	53.2	98.4	59.1
1956 I	49.1	83.9	50.3	73.6	66.7	58.5	97.7	59.9
1956 II	49.4	84.3	50.6	74.0	66.7	58.6	97.5	60.1
1956 III	49.2	83.9	51.0	73.9	66.6	58.7	96.5	60.8
1956 IV	49.9	83.7	51.4	73.8	67.5	59.6	97.0	61.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.1	83.5	51.8	73.8	67.9	60.0	96.8	62.0
1957 II	50.0	83.0	52.1	73.6	68.0	60.3	96.0	62.8
1957 III	50.1	83.1	52.5	73.8	67.8	60.2	95.3	63.2
1957 IV	49.4	81.3	52.9	72.7	68.0	60.7	93.5	65.0
1958 I	48.2	79.0	53.0	71.2	67.7	61.0	90.9	67.1
1958 II	48.1	78.1	53.3	70.6	68.1	61.6	90.3	68.2
1958 III	49.3	78.8	53.5	71.2	69.2	62.5	92.0	68.0
1958 IV	50.9	80.0	53.9	72.1	70.6	63.7	94.6	67.3
1959 I	52.1	81.1	54.2	73.0	71.3	64.2	96.0	66.9
1959 II	53.4	83.0	54.7	74.4	71.8	64.3	97.7	65.8
1959 III	52.5	82.2	55.0	74.0	70.9	63.8	95.4	66.9
1959 IV	52.8	82.0	55.4	74.0	71.3	64.3	95.2	67.5
1960 I	54.1	82.1	55.9	74.2	72.9	65.9	96.8	68.1
1960 II	53.7	82.6	56.2	74.7	72.0	65.0	95.6	68.0
1960 III	53.5	82.6	56.6	74.8	71.5	64.7	94.6	68.4
1960 IV	52.9	81.6	56.8	74.2	71.3	64.8	93.1	69.6
1961 I	53.0	81.1	57.0	73.9	71.8	65.4	92.9	70.4
1961 II	54.0	80.3	57.4	73.4	73.5	67.3	94.1	71.5
1961 III	54.7	80.9	57.8	74.0	74.0	67.7	94.7	71.5
1961 IV	56.1	81.5	58.2	74.6	75.3	68.8	96.4	71.4
1962 I	56.8	82.4	58.6	75.2	75.5	69.0	97.0	71.1
1962 II	57.2	82.8	59.1	75.7	75.6	69.2	96.9	71.4
1962 III	57.8	82.3	59.6	75.5	76.5	70.2	97.0	72.4
1962 IV	58.1	81.7	60.0	75.3	77.2	71.1	96.8	73.4
1963 I	58.7	82.3	60.3	75.8	77.4	71.3	97.3	73.3
1963 II	59.7	82.8	60.8	76.3	78.3	72.1	98.2	73.5
1963 III	60.5	82.8	61.3	76.5	79.1	73.0	98.6	74.0
1963 IV	61.0	83.2	61.8	76.9	79.4	73.4	98.8	74.3
1964 I	62.2	83.2	62.2	77.0	80.9	74.8	100.0	74.8
1964 II	63.1	84.0	62.8	77.9	81.2	75.1	100.5	74.7
1964 III	64.1	84.3	63.4	78.2	82.0	76.0	101.1	75.2
1964 IV	64.8	84.9	64.0	78.7	82.3	76.3	101.4	75.3
1965 I	66.4	85.9	64.6	79.6	83.3	77.2	102.7	75.2
1965 II	67.4	87.0	65.2	80.6	83.7	77.5	103.3	75.0
1965 III	68.1	86.7	66.0	80.6	84.5	78.6	103.2	76.2
1965 IV	69.7	87.7	66.5	81.4	85.6	79.5	104.9	75.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	71.1	88.4	67.2	82.2	86.5	80.4	105.8	76.0
1966 II	71.3	88.8	67.9	82.7	86.2	80.2	104.9	76.5
1966 III	71.9	89.1	68.7	83.1	86.5	80.7	104.7	77.1
1966 IV	72.2	89.1	69.4	83.4	86.6	81.1	104.1	77.9
1967 I	72.2	88.9	70.1	83.4	86.5	81.2	103.0	78.9
1967 II	72.7	88.2	70.7	83.2	87.4	82.5	102.8	80.2
1967 III	73.5	88.8	71.4	83.8	87.7	82.7	103.0	80.4
1967 IV	74.5	89.3	72.1	84.3	88.3	83.5	103.4	80.7
1968 I	75.4	89.5	72.7	84.7	89.0	84.3	103.7	81.3
1968 II	76.5	90.1	73.4	85.4	89.6	84.9	104.2	81.5
1968 III	77.7	90.8	74.1	86.0	90.3	85.6	104.8	81.7
1968 IV	78.2	91.3	74.8	86.6	90.3	85.6	104.5	81.9
1969 I	79.0	92.8	75.5	87.9	89.9	85.1	104.5	81.4
1969 II	79.2	92.9	76.3	88.2	89.8	85.3	103.8	82.1
1969 III	79.5	93.2	77.1	88.7	89.6	85.2	103.1	82.7
1969 IV	79.0	92.7	77.8	88.6	89.2	85.2	101.5	83.9
1970 I	78.4	92.4	78.4	88.5	88.6	84.9	100.1	84.8
1970 II	78.5	91.5	79.0	88.2	89.1	85.8	99.4	86.3
1970 III	79.1	90.6	79.7	87.8	90.1	87.3	99.3	87.9
1970 IV	78.0	89.9	80.3	87.4	89.2	86.7	97.2	89.3
1971 I	80.0	90.3	80.9	87.9	91.0	88.6	98.9	89.6
1971 II	80.3	90.7	81.5	88.4	90.8	88.5	98.4	89.9
1971 III	81.1	90.2	82.2	88.2	91.9	89.9	98.7	91.1
1971 IV	82.1	91.4	82.7	89.3	92.0	89.8	99.3	90.5
1972 I	84.1	92.5	83.4	90.3	93.1	90.9	100.8	90.1
1972 II	85.6	93.0	84.1	90.8	94.2	91.9	101.7	90.4
1972 III	86.5	93.7	84.8	91.5	94.6	92.4	102.0	90.6
1972 IV	88.7	94.6	85.6	92.4	96.1	93.8	103.7	90.5
1973 I	91.6	95.9	86.4	93.5	97.9	95.5	106.0	90.1
1973 II	91.7	96.9	87.3	94.5	97.1	94.7	105.0	90.2
1973 III	91.9	97.4	88.3	95.2	96.5	94.3	104.1	90.6
1973 IV	92.6	97.9	89.2	95.8	96.7	94.6	103.9	91.1
1974 I	91.2	98.1	90.0	96.1	94.8	93.0	101.4	91.8
1974 II	91.0	97.8	90.8	96.2	94.6	93.1	100.2	92.8
1974 III	90.1	97.4	91.5	96.2	93.7	92.5	98.4	94.0
1974 IV	88.6	96.0	92.3	95.5	92.8	92.3	96.1	96.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	86.0	93.2	92.7	93.7	91.8	92.3	92.8	99.5
1975 II	87.5	92.4	93.1	93.3	93.8	94.7	94.0	100.8
1975 III	89.8	93.5	93.7	94.2	95.3	96.1	95.9	100.2
1975 IV	90.7	94.8	94.2	95.3	95.2	95.7	96.3	99.4
1976 I	93.3	95.9	94.8	96.2	96.9	97.3	98.4	98.9
1976 II	93.8	96.0	95.5	96.6	97.2	97.7	98.3	99.4
1976 III	94.4	96.3	96.2	96.9	97.4	98.0	98.1	99.9
1976 IV	95.0	96.8	96.8	97.5	97.4	98.1	98.1	100.0
1977 I	97.5	98.0	97.6	98.5	99.0	99.5	99.9	99.6
1977 II	99.3	99.9	98.4	99.8	99.6	99.4	101.0	98.4
1977 III	101.3	100.6	99.2	100.4	100.9	100.7	102.0	98.7
1977 IV	101.9	101.7	100.0	101.2	100.7	100.2	101.9	98.3
1978 I	102.3	102.7	100.8	102.1	100.1	99.6	101.4	98.2
1978 II	104.6	104.8	101.8	103.9	100.7	99.9	102.8	97.2
1978 III	105.3	105.4	102.7	104.6	100.7	100.0	102.5	97.5
1978 IV	106.7	106.8	103.7	105.9	100.8	99.9	102.9	97.1
1979 I	107.7	108.1	104.6	107.0	100.6	99.7	103.0	96.8
1979 II	107.1	107.5	105.6	107.0	100.1	99.6	101.4	98.2
1979 III	107.7	108.6	106.5	108.0	99.8	99.2	101.1	98.1
1979 IV	108.2	109.3	107.3	108.8	99.5	99.0	100.8	98.2
1980 I	108.7	109.5	108.2	109.1	99.6	99.3	100.5	98.8
1980 II	105.4	106.7	108.9	107.5	98.1	98.8	96.8	102.1
1980 III	105.7	106.5	109.6	107.6	98.2	99.2	96.4	102.9
1980 IV	107.5	108.7	110.5	109.3	98.3	98.9	97.3	101.7
1981 I	109.3	109.5	111.5	110.2	99.2	99.8	98.0	101.8

May 22, 1981

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	51.9	90.4	63.8	89.0	58.3	57.4	81.3	70.6
1958 II	51.0	89.1	64.0	88.2	57.8	57.2	79.6	71.8
1958 III	53.0	89.7	64.2	88.7	59.7	59.1	82.5	71.6
1958 IV	55.1	91.7	64.5	90.2	61.1	60.1	85.4	70.4
1959 I	57.0	93.4	65.0	91.5	62.3	61.0	87.7	69.6
1959 II	58.9	97.2	65.4	94.3	62.5	60.7	90.1	67.3
1959 III	56.6	94.2	65.6	92.4	61.3	60.1	86.2	69.7
1959 IV	56.8	93.7	66.1	92.2	61.6	60.6	86.0	70.5
1960 I	59.7	93.5	66.6	92.2	64.7	63.8	89.7	71.2
1960 II	58.6	94.3	66.8	92.9	63.0	62.1	87.7	70.8
1960 III	57.3	94.1	67.0	92.8	61.8	60.9	85.5	71.3
1960 IV	56.3	91.4	67.2	90.8	62.0	61.6	83.9	73.5
1961 I	55.9	90.6	67.1	90.2	62.0	61.7	83.3	74.1
1961 II	57.6	89.2	67.4	89.2	64.6	64.6	85.4	75.6
1961 III	58.7	90.6	67.7	90.4	65.0	64.8	86.7	74.8
1961 IV	60.2	91.5	68.1	91.2	66.0	65.8	88.4	74.4
1962 I	60.6	92.7	68.2	92.1	65.8	65.4	88.9	73.6
1962 II	61.9	92.9	68.6	92.4	67.0	66.7	90.2	73.9
1962 III	62.2	92.4	69.1	92.2	67.4	67.3	90.0	74.8
1962 IV	62.7	91.7	69.4	91.8	68.4	68.4	90.4	75.7
1963 I	63.8	91.8	69.5	91.9	69.4	69.5	91.8	75.6
1963 II	66.0	93.0	70.0	92.9	71.1	71.0	94.4	75.3
1963 III	66.5	92.7	70.4	92.8	71.7	71.8	94.6	75.9
1963 IV	67.7	92.4	70.7	92.7	73.0	73.3	95.8	76.5
1964 I	68.4	91.3	70.9	91.9	74.4	74.9	96.4	77.7
1964 II	69.4	93.5	71.3	93.7	74.1	74.3	97.3	76.3
1964 III	70.4	93.7	71.8	94.1	74.8	75.1	97.9	76.6
1964 IV	70.8	94.0	72.5	94.5	75.0	75.3	97.8	77.1
1965 I	73.3	95.3	73.1	95.6	76.7	77.0	100.4	76.7
1965 II	74.5	96.6	73.5	96.8	76.9	77.1	101.3	76.1
1965 III	75.8	96.4	74.1	96.8	78.3	78.7	102.4	76.8
1965 IV	76.8	98.4	74.6	98.5	78.0	78.1	103.0	75.8
1966 I	78.9	99.5	75.2	99.6	79.2	79.3	104.9	75.5
1966 II	79.0	99.7	75.9	99.9	79.1	79.3	104.1	76.2
1966 III	79.3	99.7	76.7	100.1	79.2	79.6	103.4	76.9
1966 IV	79.0	99.9	77.4	100.5	78.6	79.1	102.1	77.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	78.3	99.2	78.2	100.3	78.1	78.9	100.1	78.8
1967 II	78.1	97.3	78.9	97.3	80.3	80.2	99.0	81.0
1967 III	78.9	98.4	79.5	97.0	81.3	80.1	99.2	80.8
1967 IV	81.0	98.8	80.1	96.5	84.0	82.0	101.2	81.1
1968 I	81.8	98.4	80.6	95.6	85.6	83.2	101.5	81.9
1968 II	82.7	99.1	81.1	96.3	85.8	83.4	101.9	81.8
1968 III	83.3	99.5	81.7	96.8	86.0	83.7	101.9	82.1
1968 IV	84.2	99.9	82.2	97.2	86.6	84.3	102.5	82.2
1969 I	85.3	102.1	82.8	99.0	86.2	83.5	103.1	81.0
1969 II	85.0	101.2	83.3	98.5	86.3	83.9	102.0	82.3
1969 III	85.5	101.1	83.9	98.6	86.7	84.6	102.0	82.9
1969 IV	84.4	100.0	84.3	97.9	86.2	84.3	100.1	84.3
1970 I	82.3	98.6	84.6	97.0	84.8	83.4	97.2	85.8
1970 II	81.6	97.2	85.1	96.0	84.9	83.9	95.9	87.5
1970 III	81.1	94.8	85.4	94.4	85.9	85.5	94.9	90.1
1970 IV	80.6	92.4	85.8	92.7	87.0	87.2	94.0	92.8
1971 I	82.8	92.8	86.1	93.1	89.0	89.2	96.2	92.8
1971 II	83.8	93.4	86.4	93.6	89.5	89.7	97.0	92.5
1971 III	84.0	92.4	86.6	92.9	90.4	90.9	97.0	93.7
1971 IV	85.2	93.9	86.8	94.1	90.5	90.7	98.1	92.4
1972 I	87.7	95.6	87.1	95.4	91.9	91.7	100.7	91.1
1972 II	89.3	96.2	87.5	96.0	93.0	92.8	102.0	90.9
1972 III	89.6	97.2	88.0	96.8	92.5	92.2	101.9	90.5
1972 IV	93.4	98.3	88.3	97.7	95.5	95.0	105.7	89.9
1973 I	97.0	99.8	88.8	99.0	98.0	97.2	109.2	89.0
1973 II	97.5	101.0	89.4	100.1	97.4	96.5	109.0	88.5
1973 III	97.7	101.4	90.1	100.6	97.1	96.4	108.4	88.9
1973 IV	97.6	102.3	90.9	101.5	96.2	95.4	107.4	88.8
1974 I	94.2	102.9	91.6	102.1	92.2	91.5	102.8	89.0
1974 II	94.4	100.7	92.3	100.6	93.8	93.8	102.2	91.7
1974 III	93.8	99.6	93.1	100.1	93.8	94.2	100.8	93.5
1974 IV	89.7	96.9	93.9	98.2	91.3	92.6	95.5	96.9
1975 I	83.3	91.4	94.3	94.3	88.3	91.1	88.3	103.2
1975 II	85.1	89.6	94.6	93.0	91.5	95.0	89.9	105.6
1975 III	89.7	91.2	95.0	94.3	95.0	98.3	94.4	104.1
1975 IV	91.1	92.5	95.4	95.4	95.5	98.5	95.5	103.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	94.1	95.9	96.8	96.4	99.1	97.3	101.8
1976 II	93.7	94.3	96.4	97.1	96.5	99.3	97.1	102.2
1976 III	94.1	94.3	97.1	97.2	96.8	99.8	97.0	102.9
1976 IV	96.0	94.7	97.6	97.7	98.3	101.3	98.3	103.1
1977 I	97.2	96.1	98.3	98.9	98.3	101.2	98.9	102.3
1977 II	99.6	98.6	99.0	101.0	98.7	101.0	100.7	100.4
1977 III	101.5	98.7	99.8	101.2	100.3	102.9	101.7	101.1
1977 IV	101.7	100.0	100.4	102.4	99.3	101.7	101.3	100.4
1978 I	101.7	100.4	101.1	102.9	98.9	101.3	100.6	100.7
1978 II	104.5	103.4	102.1	105.4	99.2	101.1	102.4	98.7
1978 III	106.2	104.4	103.0	106.4	99.8	101.7	103.1	98.6
1978 IV	107.5	105.7	103.8	107.6	99.9	101.7	103.6	98.2
1979 I	108.0	106.9	104.8	108.8	99.3	101.0	103.0	98.1
1979 II	107.8	105.2	105.9	107.8	100.0	102.4	101.8	100.6
1979 III	107.9	106.1	106.8	108.7	99.2	101.7	101.0	100.6
1979 IV	108.0	106.5	107.6	109.3	98.8	101.4	100.3	101.1
1980 I	108.6	106.5	108.6	109.5	99.2	101.9	100.0	102.0
1980 II	101.9	101.6	109.3	106.0	96.1	100.3	93.3	107.6
1980 III	98.7	100.4	109.8	105.3	93.8	98.3	89.9	109.3
1980 IV	103.9	103.6	110.3	107.8	96.3	100.2	94.2	106.4
1981 I	106.2	104.8	111.0	108.9	97.4	101.3	95.7	105.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	45.6	68.5	47.6	81.2	56.1	66.5	95.8	69.4
1958 II	46.1	67.8	47.9	80.7	57.1	67.9	96.2	70.6
1958 III	46.6	68.7	48.2	81.6	57.1	67.9	96.8	70.2
1958 IV	48.0	69.3	48.5	82.3	58.3	69.2	98.9	70.0
1959 I	48.5	69.9	48.8	82.9	58.5	69.5	99.5	69.9
1959 II	49.5	70.4	49.2	83.6	59.2	70.3	100.6	69.9
1959 III	49.6	71.2	49.6	84.5	58.6	69.6	99.8	69.7
1959 IV	49.9	71.2	50.0	84.7	58.9	70.1	99.8	70.2
1960 I	50.1	71.5	50.5	85.1	58.8	70.1	99.2	70.6
1960 II	50.3	71.8	50.9	85.6	58.8	70.1	98.8	70.9
1960 III	50.8	72.0	51.3	86.0	59.1	70.6	99.0	71.2
1960 IV	50.5	72.2	51.6	86.3	58.5	70.0	97.8	71.5
1961 I	51.0	71.8	52.0	86.2	59.1	70.9	98.0	72.4
1961 II	51.5	71.5	52.4	86.1	59.7	71.9	98.2	73.2
1961 III	51.9	71.5	52.8	86.4	60.1	72.6	98.2	73.9
1961 IV	53.2	72.0	53.2	87.0	61.2	73.9	100.0	74.0
1962 I	54.1	72.5	53.7	87.6	61.7	74.6	100.7	74.1
1962 II	53.9	73.0	54.2	88.3	61.0	73.8	99.4	74.3
1962 III	54.7	72.7	54.8	88.3	61.9	75.2	99.8	75.4
1962 IV	54.8	72.2	55.3	88.1	62.2	75.9	99.2	76.5
1963 I	55.0	73.1	55.7	89.1	61.8	75.3	98.8	76.3
1963 II	55.2	73.1	56.2	89.4	61.8	75.6	98.2	77.0
1963 III	56.2	73.3	56.8	89.8	62.6	76.7	99.0	77.5
1963 IV	56.3	74.1	57.3	90.8	62.0	76.0	98.2	77.4
1964 I	57.9	74.9	57.9	91.7	63.1	77.3	100.0	77.3
1964 II	58.6	74.8	58.5	92.0	63.7	78.4	100.2	78.3
1964 III	59.7	75.1	59.2	92.6	64.4	79.4	100.8	78.7
1964 IV	60.6	75.9	59.7	93.5	64.8	79.8	101.5	78.7
1965 I	61.4	76.7	60.4	94.5	65.0	80.1	101.7	78.8
1965 II	62.4	77.5	61.1	95.5	65.3	80.5	102.1	78.8
1965 III	62.6	77.1	62.0	95.7	65.5	81.2	101.0	80.4
1965 IV	64.7	77.4	62.5	96.1	67.3	83.6	103.6	80.7
1966 I	65.5	77.8	63.2	96.8	67.7	84.2	103.8	81.2
1966 II	65.8	78.5	64.0	97.8	67.3	83.9	102.9	81.5
1966 III	66.6	78.9	64.7	98.5	67.7	84.5	103.0	82.0
1966 IV	67.4	78.7	65.4	98.8	68.3	85.6	103.0	83.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	67.8	78.8	66.0	99.1	68.4	86.0	102.7	83.8
1967 II	68.9	79.0	66.7	91.9	75.0	87.2	103.4	84.3
1967 III	69.7	79.3	67.4	87.7	79.5	87.9	103.5	84.9
1967 IV	69.9	79.8	68.1	85.1	82.1	87.5	102.7	85.3
1968 I	70.9	80.4	68.8	83.6	84.8	88.1	103.0	85.5
1968 II	72.1	81.0	69.6	84.3	85.5	89.0	103.6	85.9
1968 III	73.7	81.8	70.4	85.2	86.5	90.1	104.7	86.0
1968 IV	74.0	82.5	71.2	86.0	86.0	89.7	103.9	86.3
1969 I	74.4	83.3	72.0	86.9	85.7	89.3	103.4	86.4
1969 II	75.2	84.2	72.9	87.9	85.6	89.3	103.2	86.5
1969 III	75.2	84.9	73.8	88.7	84.8	88.6	101.9	86.9
1969 IV	75.1	84.8	74.6	88.9	84.5	88.6	100.7	88.0
1970 I	75.7	85.3	75.3	89.6	84.5	88.8	100.5	88.3
1970 II	76.4	84.8	76.1	89.6	85.2	90.0	100.4	89.7
1970 III	77.7	85.0	76.9	90.1	86.2	91.4	101.0	90.5
1970 IV	76.1	85.5	77.6	90.7	83.9	89.0	98.1	90.7
1971 I	78.0	85.9	78.4	91.3	85.4	90.8	99.5	91.3
1971 II	77.8	86.1	79.2	91.8	84.7	90.3	98.2	91.9
1971 III	79.0	85.9	80.0	92.0	85.9	91.9	98.7	93.2
1971 IV	79.9	87.0	80.8	93.1	85.9	91.9	98.9	92.9
1972 I	81.5	87.7	81.6	93.9	86.8	93.0	99.8	93.1
1972 II	82.9	88.1	82.5	94.5	87.7	94.1	100.5	93.7
1972 III	84.3	88.4	83.4	95.1	88.7	95.4	101.2	94.3
1972 IV	85.4	89.2	84.3	96.0	88.9	95.7	101.3	94.5
1973 I	87.8	90.4	85.3	97.3	90.3	97.1	102.9	94.4
1973 II	87.6	91.1	86.4	98.2	89.2	96.2	101.3	94.9
1973 III	87.7	91.8	87.5	99.1	88.5	95.6	100.3	95.3
1973 IV	88.8	91.9	88.5	99.6	89.2	96.7	100.4	96.3
1974 I	89.1	91.7	89.3	99.8	89.2	97.1	99.7	97.3
1974 II	88.6	92.9	90.2	101.0	87.7	95.4	98.3	97.0
1974 III	87.5	93.0	90.9	101.4	86.3	94.0	96.2	97.7
1974 IV	87.9	92.7	91.6	101.5	86.7	94.9	95.9	98.9
1975 I	87.9	91.8	92.0	101.0	87.0	95.7	95.5	100.2
1975 II	89.2	91.7	92.5	101.2	88.2	97.2	96.4	100.9
1975 III	89.9	92.5	93.2	102.0	88.2	97.3	96.5	100.8
1975 IV	90.4	93.7	93.7	103.1	87.8	96.5	96.5	100.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	94.4	94.4	103.8	89.8	98.8	98.8	100.0
1976 II	93.9	94.5	95.2	104.2	90.1	99.4	98.7	100.7
1976 III	94.6	95.0	95.9	104.8	90.2	99.6	98.6	101.0
1976 IV	94.2	95.6	96.6	105.5	89.3	98.6	97.6	101.0
1977 I	97.6	96.6	97.4	106.5	91.7	101.1	100.3	100.9
1977 II	99.1	98.0	98.2	107.9	91.9	101.1	100.9	100.2
1977 III	101.1	99.1	99.2	109.0	92.8	102.0	101.9	100.1
1977 IV	102.1	100.0	100.0	110.0	92.9	102.1	102.1	100.0
1978 I	102.7	101.3	100.9	111.2	92.3	101.3	101.8	99.6
1978 II	104.7	102.7	101.9	112.6	93.0	101.9	102.8	99.2
1978 III	104.7	103.0	102.8	113.2	92.5	101.6	101.8	99.8
1978 IV	106.0	104.5	103.8	114.6	92.5	101.4	102.1	99.3
1979 I	107.5	105.8	104.7	115.9	92.8	101.6	102.7	98.9
1979 II	106.6	106.1	105.7	116.5	91.5	100.5	100.9	99.6
1979 III	107.6	107.2	106.6	117.6	91.5	100.4	101.0	99.4
1979 IV	108.2	107.9	107.4	118.5	91.3	100.2	100.7	99.5
1980 I	108.8	108.5	108.2	119.1	91.3	100.3	100.6	99.7
1980 II	107.9	107.3	109.0	118.7	90.9	100.6	99.0	101.6
1980 III	110.6	107.9	109.8	119.5	92.6	102.5	100.8	101.7
1980 IV	110.0	109.2	110.8	120.7	91.1	100.7	99.3	101.4
1981 I	111.6	109.8	112.1	121.7	91.7	101.7	99.6	102.1

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	28.4	61.3	31.7	53.3	53.3	46.4	89.8	51.6
1948 II	28.8	60.8	32.0	53.0	54.4	47.5	90.2	52.7
1948 III	28.7	61.3	32.3	53.5	53.7	46.9	88.9	52.7
1948 IV	29.0	60.6	32.6	53.1	54.5	47.8	88.8	53.8
1949 I	28.2	59.1	32.9	52.2	54.1	47.7	85.8	55.6
1949 II	27.5	57.6	33.1	51.1	53.9	47.8	83.3	57.4
1949 III	27.6	56.8	33.2	50.6	54.5	48.6	83.1	58.4
1949 IV	26.8	55.9	33.3	50.0	53.6	47.9	80.5	59.5
1950 I	28.4	56.8	33.5	50.7	56.1	50.0	84.8	58.9
1950 II	30.2	59.1	33.8	52.4	57.7	51.2	89.6	57.1
1950 III	32.0	61.6	34.1	54.2	59.0	52.0	93.9	55.3
1950 IV	33.1	62.9	34.6	55.4	59.8	52.6	95.9	54.9
1951 I	33.5	63.9	35.0	56.2	59.5	52.3	95.7	54.7
1951 II	33.8	64.3	35.5	56.7	59.6	52.5	95.1	55.2
1951 III	33.9	63.7	36.0	56.3	60.2	53.3	94.4	56.4
1951 IV	34.2	63.7	36.3	56.4	60.6	53.6	94.2	56.9
1952 I	34.2	64.6	36.6	57.2	59.9	53.0	93.4	56.7
1952 II	33.8	63.9	36.9	56.7	59.5	52.9	91.5	57.8
1952 III	34.0	64.3	37.2	57.2	59.5	52.9	91.5	57.8
1952 IV	35.8	66.4	37.5	58.7	60.9	53.9	95.5	56.5
1953 I	36.7	67.2	37.8	59.4	61.7	54.6	96.9	56.3
1953 II	37.1	67.5	38.2	59.7	62.2	55.0	97.2	56.6
1953 III	36.9	66.6	38.5	59.2	62.4	55.4	95.8	57.8
1953 IV	35.5	65.2	38.7	58.3	61.0	54.4	91.8	59.3
1954 I	35.1	63.7	38.9	57.2	61.4	55.1	90.2	61.1
1954 II	35.0	62.8	39.1	56.7	61.8	55.7	89.4	62.3
1954 III	35.4	62.3	39.4	56.4	62.7	56.8	89.8	63.2
1954 IV	36.4	63.1	39.6	57.0	63.8	57.7	91.9	62.7
1955 I	38.2	64.4	39.9	58.0	65.8	59.3	95.7	62.0
1955 II	39.4	65.7	40.3	59.1	66.6	59.9	97.8	61.2
1955 III	39.9	66.5	40.7	59.8	66.7	59.9	97.9	61.2
1955 IV	40.4	67.4	41.2	60.5	66.7	60.0	98.0	61.2
1956 I	40.4	67.5	41.6	60.8	66.4	59.8	97.0	61.7
1956 II	40.5	67.5	42.1	60.9	66.5	60.0	96.3	62.3
1956 III	40.3	67.0	42.5	60.7	66.4	60.1	94.7	63.4
1956 IV	40.9	67.9	42.9	61.4	66.7	60.3	95.5	63.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	41.4	67.8	43.2	61.4	67.4	61.1	95.7	63.8
1957 II	41.4	67.2	43.6	61.2	67.7	61.6	95.0	64.9
1957 III	41.2	66.8	44.0	61.0	67.6	61.7	93.7	65.9
1957 IV	40.3	65.2	44.2	59.9	67.2	61.7	91.0	67.9
1958 I	38.5	63.3	44.4	58.6	65.7	60.8	86.7	70.1
1958 II	38.1	61.8	44.5	57.6	66.1	61.6	85.6	72.0
1958 III	39.3	62.6	44.7	58.2	67.5	62.7	87.9	71.3
1958 IV	40.9	63.8	44.9	59.1	69.3	64.2	91.2	70.4
1959 I	42.8	66.0	45.1	60.7	70.4	64.8	94.8	68.4
1959 II	44.3	67.5	45.5	61.9	71.5	65.6	97.3	67.5
1959 III	43.3	66.9	45.8	61.6	70.3	64.7	94.6	68.4
1959 IV	43.6	66.8	46.1	61.6	70.7	65.2	94.5	69.0
1960 I	45.5	68.5	46.6	63.0	72.2	66.4	97.6	68.0
1960 II	45.2	68.2	47.0	62.9	71.9	66.3	96.3	68.8
1960 III	44.5	67.6	47.3	62.5	71.3	65.9	94.3	70.0
1960 IV	44.2	66.2	47.4	61.6	71.8	66.8	93.2	71.6
1961 I	44.2	66.1	47.7	61.5	71.9	66.9	92.8	72.1
1961 II	45.3	66.4	48.0	61.9	73.2	68.2	94.5	72.2
1961 III	46.3	67.2	48.3	62.5	74.1	69.0	96.0	71.9
1961 IV	48.0	68.0	48.6	63.2	76.0	70.6	98.8	71.5
1962 I	49.1	68.9	49.4	64.1	76.6	71.3	99.4	71.7
1962 II	49.6	69.8	50.1	65.0	76.4	71.0	98.9	71.8
1962 III	50.4	69.9	50.8	65.2	77.3	72.1	99.2	72.7
1962 IV	51.0	69.7	51.3	65.2	78.2	73.2	99.4	73.6
1963 I	51.8	70.5	51.8	65.9	78.5	73.4	99.9	73.5
1963 II	53.1	71.2	52.4	66.6	79.7	74.5	101.3	73.6
1963 III	54.0	71.5	53.2	67.0	80.6	75.5	101.6	74.3
1963 IV	54.5	71.7	53.7	67.4	80.9	76.0	101.5	74.9
1964 I	55.9	72.5	54.4	68.1	82.0	77.1	102.8	75.0
1964 II	56.7	73.3	55.1	68.9	82.2	77.3	102.8	75.2
1964 III	57.5	73.8	55.9	69.5	82.8	77.9	102.9	75.7
1964 IV	58.1	74.5	56.7	70.3	82.6	77.9	102.4	76.1
1965 I	60.3	76.4	57.7	71.9	83.9	79.0	104.5	75.6
1965 II	61.5	77.1	58.6	72.7	84.6	79.8	104.8	76.1
1965 III	62.2	77.7	59.8	73.4	84.7	80.0	104.0	76.9
1965 IV	64.0	78.9	60.6	74.6	85.8	81.1	105.6	76.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs: Real Output	Labor Input	Capital Input	Multi-Factor Input	Productivity Ratios: Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	65.5	80.9	61.8	76.3	85.8	81.0	106.0	76.5
1966 II	66.2	81.7	63.3	77.3	85.6	81.1	104.7	77.5
1966 III	66.8	82.2	64.7	78.1	85.5	81.2	103.3	78.7
1966 IV	67.2	82.5	66.4	78.9	85.2	81.4	101.2	80.4
1967 I	67.1	82.9	67.7	79.5	84.4	80.9	99.0	81.8
1967 II	67.4	82.4	68.6	79.4	85.0	81.9	98.3	83.3
1967 III	68.2	82.8	69.7	80.0	85.2	82.3	97.8	84.1
1967 IV	69.2	83.3	70.7	80.7	85.8	83.0	97.9	84.8
1968 I	70.4	84.4	71.6	81.7	86.2	83.5	98.4	84.8
1968 II	71.9	85.1	72.8	82.6	87.0	84.4	98.7	85.5
1968 III	73.2	85.9	73.7	83.4	87.8	85.2	99.3	85.8
1968 IV	74.3	86.4	74.5	84.0	88.4	86.0	99.7	86.2
1969 I	74.9	88.1	75.5	85.5	87.6	85.0	99.2	85.7
1969 II	75.5	88.8	76.7	86.4	87.4	85.0	98.5	86.4
1969 III	76.1	89.3	77.7	87.0	87.4	85.1	97.9	86.9
1969 IV	75.9	89.2	78.4	87.1	87.1	85.1	96.8	87.9
1970 I	75.0	89.6	79.2	87.7	85.5	83.7	94.7	88.4
1970 II	75.1	88.4	79.9	87.0	86.3	84.9	93.9	90.4
1970 III	75.7	87.6	80.6	86.5	87.5	86.5	94.0	92.0
1970 IV	74.4	86.1	81.1	85.5	86.9	86.4	91.7	94.2
1971 I	77.1	87.4	81.5	86.6	89.0	88.2	94.6	93.2
1971 II	77.8	87.6	82.2	87.0	89.4	88.8	94.6	93.8
1971 III	78.7	87.4	82.8	87.0	90.5	90.1	95.0	94.8
1971 IV	80.2	88.3	83.4	87.8	91.4	90.8	96.2	94.4
1972 I	82.4	90.7	84.2	89.8	91.8	90.9	97.9	92.8
1972 II	84.0	91.8	85.2	90.9	92.5	91.5	98.6	92.8
1972 III	85.2	92.3	86.3	91.5	93.1	92.4	98.8	93.5
1972 IV	87.7	93.8	86.8	92.8	94.6	93.6	101.1	92.5
1973 I	91.0	95.8	87.6	94.5	96.3	95.0	103.9	91.4
1973 II	91.5	96.7	88.3	95.4	96.0	94.6	103.6	91.3
1973 III	91.9	97.1	89.3	95.9	95.8	94.6	102.9	91.9
1973 IV	92.0	97.9	90.3	96.8	95.1	94.0	101.9	92.2
1974 I	90.6	98.0	90.4	96.9	93.5	92.4	100.2	92.2
1974 II	89.4	97.6	91.0	96.8	92.4	91.6	98.2	93.2
1974 III	88.1	97.4	91.4	96.7	91.0	90.4	96.3	93.8
1974 IV	86.5	95.4	92.5	95.5	90.6	90.7	93.5	97.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	83.9	92.0	92.5	93.0	90.3	91.2	90.7	100.6
1975 II	85.5	90.8	92.5	92.1	92.9	94.2	92.5	101.8
1975 III	88.4	92.0	92.5	93.0	95.0	96.1	95.5	100.6
1975 IV	89.7	93.2	92.7	93.9	95.5	96.3	96.7	99.5
1976 I	92.4	95.2	93.6	95.7	96.6	97.1	98.7	98.3
1976 II	92.9	95.6	94.6	96.2	96.6	97.2	98.2	99.0
1976 III	93.7	95.9	95.3	96.7	97.0	97.7	98.3	99.4
1976 IV	94.2	96.5	95.8	97.2	96.9	97.6	98.3	99.3
1977 I	96.9	97.9	96.8	98.4	98.4	98.9	100.1	98.8
1977 II	99.3	99.6	98.0	99.6	99.7	99.7	101.4	98.4
1977 III	101.4	100.5	99.3	100.4	101.0	100.9	102.1	98.9
1977 IV	102.4	101.6	100.0	101.4	101.1	100.8	102.4	98.4
1978 I	102.9	102.6	101.0	102.3	100.5	100.2	101.8	98.5
1978 II	105.9	105.1	102.3	104.4	101.4	100.8	103.5	97.4
1978 III	106.4	105.9	103.3	105.3	101.0	100.4	103.0	97.5
1978 IV	108.0	107.5	103.9	106.6	101.3	100.5	104.0	96.7
1979 I	109.5	108.9	104.6	107.8	101.5	100.6	104.6	96.1
1979 II	109.0	108.4	105.9	107.8	101.1	100.6	102.9	97.7
1979 III	109.4	109.1	106.1	108.4	100.9	100.3	103.2	97.2
1979 IV	109.3	109.7	105.9	108.8	100.5	99.7	103.2	96.5
1980 I	109.9	110.0	106.2	109.1	100.8	100.0	103.5	96.6
1980 II	106.8	107.0	106.9	107.0	99.8	99.8	99.9	99.9
1980 III	107.7	106.1	106.7	106.3	101.3	101.5	100.9	100.6
1980 IV	108.5	107.7	106.3	107.5	101.0	100.8	102.1	98.7

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	69.7	312.7	69.1	206.8	33.7	22.3	100.9	22.1
1948 II	77.8	308.1	70.1	204.7	38.0	25.3	111.1	22.7
1948 III	74.5	316.7	71.5	210.2	35.5	23.5	104.2	22.6
1948 IV	80.9	319.7	72.9	212.5	38.1	25.3	110.9	22.8
1949 I	72.3	316.2	70.1	209.3	34.5	22.9	103.1	22.2
1949 II	73.4	325.9	71.3	215.3	34.1	22.5	102.9	21.9
1949 III	75.2	311.4	72.3	207.5	36.2	24.1	104.0	23.2
1949 IV	76.7	293.2	73.4	197.7	38.8	26.2	104.5	25.0
1950 I	81.2	288.7	71.3	194.3	41.8	28.1	113.9	24.7
1950 II	78.1	290.6	72.7	196.0	39.9	26.9	107.5	25.0
1950 III	76.7	286.5	74.2	194.3	39.5	26.8	103.3	25.9
1950 IV	78.0	287.2	75.4	195.2	40.0	27.2	103.5	26.3
1951 I	69.6	278.6	73.7	189.6	36.7	25.0	94.5	26.5
1951 II	73.3	271.6	74.6	186.1	39.4	27.0	98.1	27.5
1951 III	79.0	268.5	75.7	184.8	42.8	29.4	104.4	28.2
1951 IV	76.5	273.7	76.7	188.1	40.7	28.0	99.8	28.0
1952 I	74.1	272.3	75.3	186.8	39.7	27.2	98.4	27.7
1952 II	76.9	257.6	76.5	179.0	43.0	29.9	100.6	29.7
1952 III	80.8	253.6	77.0	176.9	45.6	31.8	104.9	30.4
1952 IV	74.3	255.4	78.0	178.4	41.6	29.1	95.1	30.6
1953 I	78.9	249.8	76.7	174.7	45.2	31.6	102.9	30.7
1953 II	80.6	239.9	77.2	169.3	47.6	33.6	104.4	32.2
1953 III	79.8	239.3	77.9	169.3	47.2	33.4	102.5	32.6
1953 IV	82.6	232.1	78.5	165.5	49.9	35.6	105.1	33.8
1954 I	80.7	244.3	77.5	171.9	47.0	33.0	104.1	31.7
1954 II	79.0	232.8	77.8	165.5	47.7	33.9	101.6	33.4
1954 III	84.5	232.6	78.5	165.7	51.0	36.3	107.6	33.7
1954 IV	85.4	224.3	79.3	161.4	52.9	38.1	107.7	35.3
1955 I	82.8	229.7	80.4	164.9	50.2	36.1	103.0	35.0
1955 II	83.6	230.7	80.9	165.7	50.4	36.2	103.3	35.1
1955 III	85.2	243.7	81.3	173.2	49.2	35.0	104.8	33.4
1955 IV	88.0	245.2	81.6	174.2	50.5	35.9	107.8	33.3
1956 I	86.7	227.3	81.6	164.1	52.8	38.1	106.2	35.9
1956 II	80.4	231.4	81.5	166.3	48.3	34.8	98.7	35.2
1956 III	83.2	230.6	81.8	166.0	50.1	36.1	101.7	35.5
1956 IV	84.5	214.3	82.1	156.9	53.9	39.4	103.0	38.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	82.7	211.1	82.5	155.3	53.3	39.2	100.3	39.1
1957 II	81.7	205.2	82.3	151.9	53.8	39.8	99.4	40.1
1957 III	80.3	211.6	82.6	155.6	51.6	37.9	97.2	39.0
1957 IV	81.2	203.8	83.2	151.5	53.6	39.8	97.6	40.8
1958 I	85.4	190.9	82.8	144.0	59.3	44.7	103.1	43.4
1958 II	83.8	195.9	83.2	147.1	57.0	42.8	100.7	42.5
1958 III	84.8	190.7	83.5	144.2	58.8	44.5	101.6	43.8
1958 IV	86.2	193.2	83.9	145.8	59.1	44.6	102.7	43.4
1959 I	83.4	190.6	84.7	144.7	57.6	43.8	98.5	44.4
1959 II	80.2	204.4	85.0	152.6	52.5	39.2	94.3	41.6
1959 III	77.0	189.9	85.2	144.5	53.3	40.6	90.4	44.9
1959 IV	81.4	187.2	85.5	143.1	56.8	43.5	95.2	45.7
1960 I	81.3	173.9	86.2	135.6	59.9	46.7	94.4	49.5
1960 II	83.8	186.3	86.1	142.8	58.7	45.0	97.3	46.2
1960 III	87.6	194.5	86.3	147.7	59.3	45.0	101.6	44.3
1960 IV	87.5	190.2	86.4	145.2	60.3	46.0	101.3	45.4
1961 I	87.0	188.7	85.8	144.1	60.4	46.1	101.4	45.5
1961 II	84.6	170.3	86.1	133.5	63.3	49.7	98.2	50.6
1961 III	83.3	174.2	86.3	135.8	61.3	47.8	96.6	49.5
1961 IV	83.5	171.8	86.4	134.5	62.1	48.6	96.6	50.3
1962 I	84.0	182.9	85.9	140.8	59.7	45.9	97.8	47.0
1962 II	85.4	171.6	86.3	134.3	63.6	49.8	99.1	50.3
1962 III	84.0	165.4	86.6	130.8	64.2	50.8	97.0	52.4
1962 IV	83.3	164.6	87.1	130.6	63.8	50.6	95.7	52.9
1963 I	86.4	166.6	86.4	131.4	65.7	51.9	100.0	51.9
1963 II	88.2	166.9	87.0	131.8	66.9	52.8	101.3	52.2
1963 III	86.7	162.0	87.4	129.1	67.1	53.5	99.2	54.0
1963 IV	86.3	159.2	87.8	127.7	67.6	54.2	98.3	55.2
1964 I	83.0	149.2	87.4	121.7	68.2	55.6	95.0	58.5
1964 II	84.0	158.4	87.7	127.2	66.1	53.0	95.8	55.4
1964 III	86.2	157.8	88.2	127.0	67.9	54.6	97.7	55.9
1964 IV	86.1	152.1	88.6	123.9	69.5	56.6	97.1	58.3
1965 I	88.4	148.2	89.1	121.8	72.6	59.7	99.2	60.1
1965 II	87.1	156.1	89.2	126.4	68.9	55.8	97.6	57.1
1965 III	90.3	147.9	89.3	121.6	74.3	61.1	101.2	60.4
1965 IV	85.7	149.9	89.3	122.9	69.8	57.2	96.0	59.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	87.7	142.7	89.4	118.6	73.9	61.5	98.1	62.7
1966 II	82.9	137.6	89.6	115.7	71.6	60.2	92.5	65.1
1966 III	79.6	133.0	89.7	113.1	70.4	59.9	88.8	67.4
1966 IV	81.7	133.4	89.8	113.4	72.1	61.3	91.0	67.3
1967 I	85.7	134.3	90.0	114.0	75.2	63.8	95.2	67.0
1967 II	85.0	126.4	90.2	109.4	77.7	67.3	94.3	71.3
1967 III	88.3	133.4	90.4	113.6	77.7	66.2	97.7	67.8
1967 IV	90.0	132.7	90.6	113.3	79.4	67.8	99.3	68.2
1968 I	86.5	131.3	90.7	112.5	76.9	65.9	95.4	69.1
1968 II	82.0	129.6	90.8	111.6	73.5	63.3	90.3	70.1
1968 III	86.5	127.7	91.0	110.5	78.3	67.7	95.0	71.3
1968 IV	87.0	127.2	91.2	110.3	78.8	68.4	95.4	71.7
1969 I	91.1	139.0	91.5	117.3	77.7	65.5	99.6	65.8
1969 II	85.9	124.5	91.6	108.9	78.9	69.0	93.8	73.6
1969 III	87.1	120.5	91.7	106.6	81.7	72.3	95.0	76.1
1969 IV	85.3	116.4	91.7	104.2	81.9	73.3	93.0	78.8
1970 I	88.5	115.2	91.8	103.7	85.3	76.8	96.3	79.7
1970 II	93.3	118.2	92.1	105.3	88.6	78.9	101.3	77.9
1970 III	90.1	113.3	92.3	103.0	87.4	79.5	97.5	81.5
1970 IV	96.5	110.5	92.6	101.8	94.9	87.3	104.3	83.8
1971 I	101.5	109.7	93.0	101.6	100.0	92.6	109.2	84.8
1971 II	96.1	112.8	93.3	103.2	93.1	85.2	103.0	82.7
1971 III	94.4	107.9	93.5	100.9	93.5	87.5	100.9	86.7
1971 IV	97.5	111.1	93.7	102.6	95.1	87.8	104.1	84.3
1972 I	103.0	113.4	93.8	103.8	99.3	90.8	109.9	82.7
1972 II	101.3	109.5	93.8	101.9	99.4	92.5	108.0	85.7
1972 III	84.7	113.8	93.9	104.1	81.4	74.4	90.1	82.5
1972 IV	91.9	111.9	94.1	103.2	89.1	82.1	97.7	84.1
1973 I	97.8	109.4	94.2	102.0	95.8	89.4	103.8	86.1
1973 II	93.0	109.2	94.8	102.2	91.0	85.2	98.1	86.8
1973 III	87.3	109.2	95.4	102.5	85.2	80.0	91.6	87.3
1973 IV	100.2	110.0	96.0	103.2	97.1	91.1	104.5	87.2
1974 I	89.1	118.7	96.2	107.6	82.8	75.1	92.6	81.1
1974 II	99.8	109.8	96.5	103.4	96.5	90.9	103.4	87.9
1974 III	95.7	105.0	96.8	101.2	94.6	91.1	98.8	92.2
1974 IV	96.6	107.4	97.0	102.5	94.3	90.0	99.6	90.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	95.4	105.1	97.3	101.5	94.1	90.8	98.1	92.5
1975 II	103.3	104.6	97.6	101.4	101.9	98.8	105.8	93.3
1975 III	105.6	108.2	98.0	103.4	102.2	97.6	107.7	90.6
1975 IV	100.9	104.1	98.4	101.6	99.3	96.9	102.5	94.5
1976 I	100.7	99.7	98.7	99.6	101.2	101.0	102.0	99.0
1976 II	93.6	103.5	98.8	101.5	92.3	90.5	94.7	95.5
1976 III	93.8	101.4	99.1	100.6	93.3	92.5	94.7	97.7
1976 IV	98.8	98.4	99.2	99.1	99.7	100.5	99.7	100.8
1977 I	100.4	98.5	99.4	99.2	101.2	101.9	101.0	100.9
1977 II	95.2	103.4	99.6	101.6	93.7	92.1	95.6	96.3
1977 III	105.2	97.6	99.8	98.8	106.5	107.8	105.5	102.2
1977 IV	99.2	100.5	100.0	100.3	98.9	98.6	99.2	99.5
1978 I	101.7	102.3	100.2	101.2	100.5	99.5	101.6	97.9
1978 II	95.4	100.9	100.7	100.8	94.6	94.6	94.7	99.8
1978 III	100.3	101.6	101.3	101.5	98.9	98.7	99.0	99.7
1978 IV	101.5	102.0	101.8	101.9	99.5	99.5	99.6	99.8
1979 I	101.3	101.9	102.4	102.1	99.1	99.4	98.9	100.5
1979 II	107.8	96.6	102.9	99.8	108.0	111.6	104.8	106.6
1979 III	107.2	97.2	103.5	100.4	106.8	110.3	103.6	106.5
1979 IV	109.4	103.4	104.1	103.8	105.4	105.8	105.1	100.7
1980 I	113.4	98.4	104.6	101.6	111.6	115.2	108.4	106.3
1980 II	115.8	93.5	105.0	99.3	116.6	123.9	110.3	112.3
1980 III	100.8	95.8	105.1	100.6	100.2	105.2	95.9	109.7
1980 IV	101.2	101.5	106.0	103.8	97.5	99.8	95.5	104.5
1981 I	101.8	100.0	106.3	103.2	98.7	101.8	95.8	106.2

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.3	80.6	37.8	69.5	50.8	43.8	93.3	47.0
1948 II	35.7	79.4	38.4	68.8	51.9	45.0	93.0	48.4
1948 III	36.3	79.4	38.9	69.0	52.6	45.7	93.2	49.0
1948 IV	36.1	78.3	39.2	68.3	52.9	46.1	92.2	50.1
1949 I	35.0	75.2	39.1	66.0	53.1	46.6	89.6	52.0
1949 II	33.8	71.8	39.4	63.7	53.0	47.0	85.6	54.9
1949 III	34.0	71.6	39.7	63.6	53.5	47.5	85.6	55.5
1949 IV	33.1	70.7	40.0	63.0	52.6	46.9	82.9	56.5
1950 I	34.6	72.9	40.5	64.7	53.5	47.5	85.5	55.6
1950 II	37.6	76.2	40.8	67.2	55.9	49.3	92.2	53.5
1950 III	40.8	80.7	41.1	70.5	57.9	50.6	99.3	50.9
1950 IV	41.7	82.9	41.5	72.3	57.8	50.3	100.6	50.0
1951 I	43.3	84.7	43.3	74.1	58.4	51.0	99.9	51.1
1951 II	43.7	85.3	43.8	74.7	58.5	51.2	99.9	51.3
1951 III	42.6	83.6	44.3	73.6	57.8	50.9	96.1	53.0
1951 IV	42.9	83.3	44.8	73.5	58.3	51.5	95.8	53.8
1952 I	43.7	84.6	45.3	74.6	58.6	51.7	96.6	53.5
1952 II	43.1	83.6	45.7	74.0	58.2	51.5	94.1	54.7
1952 III	44.0	84.5	46.4	74.9	58.7	52.0	94.6	55.0
1952 IV	47.3	89.1	46.6	78.2	60.5	53.1	101.6	52.3
1953 I	48.2	91.0	46.9	79.7	60.5	53.0	102.8	51.6
1953 II	48.4	91.6	47.4	80.3	60.3	52.8	102.2	51.7
1953 III	48.0	90.0	47.8	79.2	60.6	53.4	100.5	53.1
1953 IV	45.6	86.6	48.2	76.9	59.3	52.7	94.7	55.7
1954 I	44.0	83.7	48.5	74.9	58.7	52.6	90.8	57.9
1954 II	43.8	81.9	48.4	73.6	59.6	53.5	90.5	59.1
1954 III	43.8	80.7	48.6	72.8	60.2	54.3	90.2	60.2
1954 IV	45.0	82.1	49.0	73.9	60.9	54.9	91.9	59.7
1955 I	47.2	84.3	49.2	75.5	62.5	56.0	95.9	58.4
1955 II	49.1	86.6	49.8	77.4	63.4	56.7	98.6	57.5
1955 III	49.3	87.0	50.4	77.9	63.3	56.7	97.8	58.0
1955 IV	50.0	88.6	51.0	79.2	63.2	56.5	98.2	57.5
1956 I	49.6	88.3	51.6	79.2	62.6	56.1	96.1	58.4
1956 II	49.2	87.9	52.3	79.0	62.3	56.0	94.1	59.5
1956 III	48.2	86.8	52.9	78.5	61.4	55.5	91.2	60.9
1956 IV	50.1	88.6	53.4	79.9	62.7	56.5	93.7	60.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs Real Output	Labor Input	Capital Input	Multi-Factor Input	Productivity Ratios Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.7	88.5	53.5	79.9	63.5	57.3	94.7	60.5
1957 II	49.9	87.4	54.3	79.3	63.0	57.2	92.0	62.1
1957 III	49.9	86.4	54.6	78.7	63.5	57.8	91.4	63.2
1957 IV	47.5	83.8	54.9	76.9	61.7	56.6	86.4	65.5
1958 I	44.3	80.1	55.1	74.3	59.7	55.3	80.5	68.7
1958 II	43.5	77.6	55.0	72.5	60.1	56.1	79.2	70.8
1958 III	45.6	79.1	55.1	73.5	62.0	57.6	82.7	69.7
1958 IV	47.6	80.7	55.3	74.8	63.7	59.0	86.1	68.5
1959 I	50.0	83.6	55.4	76.9	65.0	59.8	90.3	66.2
1959 II	52.4	86.0	55.7	78.7	66.5	60.9	93.9	64.8
1959 III	49.9	84.7	55.9	77.8	64.2	59.0	89.3	66.0
1959 IV	49.9	84.4	56.3	77.7	64.2	59.1	88.7	66.7
1960 I	52.9	86.7	56.6	79.5	66.5	61.0	93.3	65.3
1960 II	51.2	85.5	56.9	78.7	65.1	59.9	90.0	66.6
1960 III	50.1	83.9	57.2	77.6	64.6	59.7	87.7	68.1
1960 IV	48.7	81.4	57.1	75.8	64.3	59.8	85.3	70.2
1961 I	47.9	80.4	57.2	75.0	63.9	59.6	83.7	71.1
1961 II	50.0	81.7	57.4	76.0	65.8	61.2	87.1	70.3
1961 III	51.7	82.6	57.7	76.8	67.3	62.6	89.6	69.9
1961 IV	53.5	84.2	58.1	78.1	68.5	63.5	92.1	69.0
1962 I	54.2	84.8	58.5	78.7	68.9	63.8	92.5	69.0
1962 II	54.7	86.1	58.9	79.7	68.7	63.6	93.0	68.4
1962 III	55.4	86.0	59.3	79.7	69.5	64.4	93.4	68.9
1962 IV	56.2	85.6	59.5	79.5	70.7	65.7	94.4	69.5
1963 I	57.7	85.9	59.9	79.8	72.3	67.1	96.3	69.7
1963 II	59.6	86.5	60.3	80.3	74.2	68.9	98.9	69.7
1963 III	60.2	86.8	60.6	80.7	74.6	69.4	99.3	69.9
1963 IV	61.4	87.0	60.9	80.9	75.8	70.5	100.8	70.0
1964 I	62.2	87.2	61.3	81.1	76.7	71.4	101.6	70.3
1964 II	63.6	88.1	61.6	81.9	77.6	72.2	103.2	69.9
1964 III	64.6	88.9	62.0	82.6	78.2	72.7	104.2	69.8
1964 IV	65.4	89.4	62.7	83.2	78.6	73.2	104.3	70.1
1965 I	67.9	92.0	63.3	85.2	79.7	73.9	107.2	68.9
1965 II	69.3	92.8	64.0	86.0	80.5	74.6	108.2	69.0
1965 III	70.6	93.9	64.8	87.1	81.1	75.2	109.0	69.0
1965 IV	71.7	95.7	65.5	88.6	81.0	74.9	109.5	68.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	73.8	97.8	66.5	90.4	81.6	75.4	111.0	67.9
1966 II	75.2	99.6	67.6	92.0	81.7	75.5	111.3	67.8
1966 III	75.9	100.4	68.7	92.9	81.6	75.6	110.4	68.4
1966 IV	76.2	101.0	69.9	93.7	81.3	75.5	109.1	69.2
1967 I	74.9	100.1	71.1	93.4	80.2	74.8	105.3	71.0
1967 II	74.3	99.0	72.1	92.8	80.1	75.1	103.1	72.8
1967 III	74.6	99.2	72.9	93.2	80.1	75.2	102.3	73.5
1967 IV	76.5	99.9	73.8	94.0	81.5	76.6	103.8	73.8
1968 I	77.8	100.3	74.4	94.5	82.4	77.6	104.6	74.2
1968 II	79.0	101.0	75.2	95.2	83.0	78.2	105.0	74.4
1968 III	79.5	101.8	76.0	95.9	82.8	78.1	104.6	74.6
1968 IV	80.4	102.4	76.6	96.6	83.3	78.5	105.0	74.8
1969 I	81.7	102.6	77.4	97.0	84.2	79.6	105.5	75.4
1969 II	81.8	103.3	78.2	97.6	83.7	79.2	104.6	75.7
1969 III	82.4	103.6	79.0	98.1	84.0	79.6	104.4	76.2
1969 IV	81.4	102.5	79.6	97.5	83.5	79.4	102.3	77.6
1970 I	78.5	101.0	80.1	96.5	81.3	77.7	98.0	79.3
1970 II	77.6	98.6	80.7	94.8	81.9	78.7	96.2	81.8
1970 III	77.1	96.7	81.2	93.5	82.5	79.7	95.0	83.9
1970 IV	75.2	93.2	81.5	90.9	82.7	80.7	92.3	87.4
1971 I	77.4	93.9	81.8	91.5	84.6	82.5	94.6	87.1
1971 II	78.5	93.8	82.1	91.5	85.7	83.7	95.5	87.6
1971 III	78.8	93.1	82.3	91.1	86.5	84.6	95.8	88.4
1971 IV	80.4	94.0	82.5	91.8	87.6	85.6	97.5	87.8
1972 I	82.6	95.7	82.9	93.2	88.6	86.3	99.6	86.6
1972 II	84.8	97.3	83.5	94.6	89.7	87.2	101.7	85.7
1972 III	87.0	97.9	84.1	95.1	91.4	88.9	103.4	85.9
1972 IV	91.0	100.0	84.6	96.8	94.0	91.0	107.6	84.6
1973 I	94.4	102.1	85.3	98.6	95.7	92.4	110.6	83.6
1973 II	96.3	103.1	86.0	99.5	96.7	93.4	111.9	83.5
1973 III	96.9	103.2	86.8	99.8	97.1	93.9	111.7	84.1
1973 IV	96.5	104.1	87.7	100.8	95.8	92.7	110.0	84.3
1974 I	93.0	103.2	88.8	100.3	92.7	90.2	104.8	86.0
1974 II	92.9	102.0	89.9	99.7	93.2	91.1	103.4	88.1
1974 III	93.4	101.8	91.0	99.8	93.5	91.8	102.7	89.4
1974 IV	88.6	98.1	92.1	97.3	91.1	90.4	96.3	93.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	81.0	91.4	92.7	92.5	87.6	88.6	87.4	101.4
1975 II	82.8	89.8	93.0	91.3	90.7	92.2	89.0	103.5
1975 III	88.2	91.2	93.2	92.4	95.5	96.7	94.6	102.2
1975 IV	90.0	93.2	93.6	94.0	95.7	96.6	96.2	100.4
1976 I	92.2	95.6	94.2	96.0	96.0	96.4	97.9	98.5
1976 II	93.3	95.6	95.0	96.2	97.0	97.6	98.3	99.3
1976 III	94.3	96.1	95.8	96.8	97.4	98.1	98.5	99.6
1976 IV	95.0	96.5	96.5	97.2	97.7	98.5	98.4	100.1
1977 I	97.0	98.0	97.4	98.5	98.4	99.0	99.6	99.4
1977 II	99.8	99.7	98.3	99.7	100.1	100.1	101.6	98.5
1977 III	101.2	100.5	99.3	100.4	100.8	100.6	101.9	98.7
1977 IV	102.1	101.6	100.0	101.2	100.8	100.5	102.1	98.5
1978 I	101.9	102.5	101.0	102.1	99.8	99.4	100.9	98.6
1978 II	104.7	104.0	102.1	103.6	101.0	100.6	102.5	98.1
1978 III	106.6	104.8	103.1	104.4	102.1	101.7	103.3	98.4
1978 IV	108.3	106.2	104.1	105.7	102.5	102.0	104.1	98.0
1979 I	109.3	107.7	105.4	107.2	102.0	101.5	103.6	97.9
1979 II	108.5	106.1	106.7	106.3	102.1	102.3	101.7	100.5
1979 III	108.5	106.5	107.8	106.9	101.5	101.9	100.7	101.2
1979 IV	108.3	106.3	108.8	106.9	101.2	101.9	99.5	102.4
1980 I	108.3	106.2	109.9	107.2	101.1	102.0	98.6	103.5
1980 II	101.8	101.2	110.7	103.6	98.3	100.7	92.0	109.4
1980 III	99.8	99.5	111.3	102.5	97.3	100.3	89.6	111.9
1980 IV	105.3	102.1	111.8	104.6	100.6	103.0	94.2	109.4
1981 I	106.8	103.2	112.8	105.7	101.1	103.5	94.7	109.2

May 22, 1981

Section D: Table VIII a.
Labor Productivity in the U.S. Economy by Sector: Selected Years
(1972 Constant Dollars per Hour)

	1948	1965	1973	1979	1980
Private Business Economy	3.48	5.91	7.17	7.51	7.49
Private Goods Industries:					
Goods Producing	2.93	5.70	7.08	7.46	7.37
Farming	1.13	2.73	4.03	4.99	5.17
Mining	5.32	10.82	13.15	9.53	9.54
Construction	4.49	6.93	6.46	5.37	4.94
Manufacturing	3.65	6.03	7.52	8.23	8.20
Private Services Industries:					
Service Producing	4.12	6.10	7.24	7.55	7.57
Transportation	4.11	6.07	7.47	8.02	8.39
Communication	3.11	9.08	13.21	18.48	18.53
Public Utilities	4.50	14.00	18.88	19.58	19.87
Trade	2.97	4.71	6.06	6.34	6.32
Finance & Insurance	5.61	7.03	7.74	7.67	7.43
Real Estate	24.10	29.69	29.87	27.39	26.69
Services	4.63	5.35	5.54	5.58	5.65

Section D: Table VIII b.
Capital Stock per in the U.S. Economy by Sector: Selected Years
(1972 Constant Dollars per Hour)

	1948	1965	1973	1979	1980
Private Business Economy	11.83	17.67	21.23	22.87	23.66
Private Goods Industries:					
Goods Producing	8.83	14.14	16.47	18.57	19.49
Farming	12.30	31.40	46.36	55.33	57.65
Mining	22.76	64.80	74.34	61.84	59.86
Construction	1.68	3.44	4.05	3.86	3.80
Manufacturing	7.03	9.96	12.11	14.52	15.57
Private Services Industries:					
Service Producing	15.38	20.88	25.05	25.97	26.45
Transportation	16.57	24.88	27.64	29.75	31.26
Communication	11.36	31.48	42.82	51.66	52.37
Public Utilities	49.45	96.51	134.88	157.90	159.58
Trade	2.75	5.34	7.55	8.27	8.61
Finance & Insurance	3.95	6.27	10.07	13.50	14.29
Real Estate*	n.a.	n.a.	n.a.	n.a.	n.a.
Services	15.51	22.21	24.97	24.30	24.35

* Not Applicable; capital stock is not truly comparable in a technical sense with that of goods producing or service industries. Hence, levels of capital per hour are not shown.

Section D: Table VIIIc.
Labor Productivity in the U.S. Economy by Sector: Growth Rates by Selected Years

	1948-65	1965-73	1973-79	1979-80
Private Business Economy	3.2%	2.4%	0.8%	-0.3%
Private Goods Industries:				
Goods Producing	4.0	2.7	0.9	-1.2
Farming	5.3	5.0	3.6	3.6
Mining	4.3	2.5	-5.2	-0.1
Construction	2.6	-0.9	-3.0	-8.0
Manufacturing	3.0	2.8	1.5	-0.4
Private Services Industries:				
Service Producing	2.3	2.2	.7	0.3
Transportation	2.3	2.6	1.2	4.6
Communication	6.5	4.8	5.8	0.3
Public Utilities	6.9	3.8	0.6	1.5
Trade	2.7	3.2	0.8	-0.3
Finance & Insurance	1.3	1.2	-0.2	-3.2
Real Estate	1.2	.1	-1.4	-2.6
Services	0.9	0.4	0.1	1.3

Section D: Table VIIId.
Capital Stock per Hour in the U.S. Economy by Sector: Growth Rates by Selected Years

	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.4%	2.3%	1.2%	3.5%
Private Goods Industries:				
Goods Producing	2.8	1.9	2.0	5.0
Farming	5.7	5.0	3.0	4.2
Mining	6.3	1.7	-3.0	-3.2
Construction	4.3	2.1	-0.8	1.6
Manufacturing	2.1	2.5	3.1	7.2
Private Services Industries:				
Service Producing	1.8	2.3	0.6	1.8
Transportation	2.4	1.3	1.2	5.1
Communication	6.2	3.9	3.2	1.4
Public Utilities	4.0	4.3	2.7	1.1
Trade	4.0	4.4	1.5	4.1
Finance & Insurance	2.8	6.1	5.0	5.9
Real Estate	n.a.	n.a.	n.a.	n.a.
Services	2.1	1.5	-0.5	0.2

* Not Applicable; capital stock is not truly comparable in a technical sense with that of goods producing or service industries. Hence, levels of capital per hour are not shown.

SUMMARY NOTE ON SOURCES OF DATA AND METHODOLOGY

Basically, the sources of data and methodology used to estimate total factor productivity are the same as detailed in Productivity in the United States, Trends and Cycles (The John Hopkins University Press, 1980), by Drs. John W. Kendrick and Elliot S. Grossman.

A. Annual Series

Real Output

Output is the annual series of gross product originating in constant 1972 dollars as estimated by the Bureau of Economic Analysis (B.E.A.) in its National Income and Product Accounts program. Each sector is used directly as published except for:

1. services, which excludes in the APC series real output for households and institutions (See Survey of Current Business, table 6.2); and includes government enterprises.

2. real estate, which excludes owner-occupied nonfarm housing, and rental value of nonprofit real estate.

3. and agriculture, which includes only S.I.C. 01-02 farming. Agricultural services, forestry and fisheries (S.I.C. 07-09) are excluded from this sector.

Output for the manufacturing and nonfarm nonmanufacturing segments are the sum of their individual industry outputs. The sum of these two segments plus farming yields output for the private business economy. Output for nonfinancial corporate business is taken directly from the Bureau of Labor Statistics series, which is based on B.E.A. estimates.

Labor Hours

In general, labor hours are based on B.L.S. data. The figures represent total hours paid for, not hours actually worked. Employment for each industry includes all employees on the payrolls (production and nonproduction workers); self-employed (formerly termed proprietors); and unpaid family workers. The figures on all persons employed are then multiplied by their respective average hours worked per week and the sum total of these products is multiplied by 52 weeks to derive hours of all persons.[1]

The B.L.S. manufacturing labor hours (all persons) is used as a control total to ensure that the individual manufacturing industry group hours agree in total. The adjustments generally ranged less than one percent, plus or minus.

Capital Input

This APC Multiple Input Productivity Index series uses the same sources of data and methodology to estimate real capital as the Kendrick-Grossman study. The only changes are with respect to the nonfarm nonmanufacturing sector, and the most recent revisions in investment data, deflators, and inventory.

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[1] This approach is consistent in theory with the "hours paid for" concept assuming vacation time, sick leave, holidays, etc., are in fact paid for as provided in many union agreements.

In general, fixed capital is estimated using the "perpetual inventory method." That is,

$$GK_t = GK_{t-1} (1-R) + GI_t$$

where, GK_t is current fixed capital,

GK_{t-1} is fixed capital from the previous period,

R is the retirement rate, and GI_t is the current level of investment.

Added to GK_t, fixed capital, are imputations for land and end-of-period inventory. The source for the land imputation is the 1972 ratio of land to depreciable fixed assets, as published by the IRS. The only exception is for farming, where direct estimates from the Department of Agriculture are obtained.

Fixed capital data for the major segments of the economy and sectors are controlled to B.E.A. estimates, except for nonfarm nonmanufacturing. That is, farming and non-financial corporate business end-of-year fixed capital stocks data are taken to be the B.E.A. estimates. Five manufacturing industries capital data are adjusted to agree with the B.E.A. estimates of fixed capital. The remaining fixed capital estimates for the nonfarm nonmanufacturing industries are a continuation of original estimates as published by the B.L.S. in "Capital Stock Estimates for Input-Output Industries: Methods and Data," (Bulletin 2034, 1979). Also, real estate fixed capital includes residential tenant-occupied (rental) housing, and services fixed capital includes government enterprises, controlled to estimates of these series as published by the B.E.A.

B. Quarterly Sector Estimates

Output and Labor Input

Quarterly output and labor hours for the private business, farming, manufacturing, nonfarm nonmanufacturing, and the nonfinancial corporate business segments of the economy are taken directly from the B.L.S. estimates.

Capital Input

Fixed capital, land and inventory for the fourth quarter of each year are the same as for the annual segments and sectors. Quarterly figures on inventory are taken from the *Survey of Current Business*; and the B.L.S. land series is based on the ratio of land to fixed capital for each year using the annual data. Finally, quarterly interpolation is based on quarterly investment series for each of the sectors, using the retirement rates for each year as implied by the annual fixed capital and investment data.

The private business economy total is the sum of the component sectors farming, manufacturing, and the several sectors in the nonfarm nonmanufacturing segment which includes the following: mining, construction, transportation, communications, public utilities, trade, finance and insurance, real estate and "other" services (including health, educational, professional, and household/domestic services).

C. General Notes

Weights of Capital-Labor Shares

In order to calculate multiple-factor *input*, indexes of labor and capital are weighted and added together. The weights

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.4	64.4	36.4	55.4	64.0	55.0	97.4	56.5
1948 II	36.3	64.7	36.7	55.6	65.3	56.1	99.0	56.7
1948 III	36.1	65.4	37.0	56.2	64.3	55.3	97.8	56.5
1948 IV	36.7	65.1	37.2	56.1	65.4	56.3	98.5	57.2
1949 I	36.2	64.9	37.4	56.0	64.6	55.7	96.7	57.6
1949 II	36.0	64.6	37.6	55.8	64.6	55.8	95.9	58.3
1949 III	36.2	63.7	37.9	55.3	65.4	56.8	95.6	59.4
1949 IV	35.8	63.6	38.0	55.3	64.7	56.2	94.1	59.7
1950 I	37.4	63.3	38.2	55.1	67.8	59.0	97.7	60.5
1950 II	38.4	64.3	38.6	55.9	68.6	59.7	99.5	60.0
1950 III	39.3	65.4	38.9	56.8	69.1	60.0	101.0	59.4
1950 IV	39.7	65.4	39.3	56.9	69.9	60.8	101.2	60.1
1951 I	39.4	66.3	39.6	57.6	68.4	59.4	99.6	59.6
1951 II	39.6	66.9	39.9	58.1	68.1	59.2	99.2	59.6
1951 III	40.9	66.4	40.1	57.8	70.7	61.5	101.9	60.4
1951 IV	41.3	66.7	40.3	58.1	71.0	61.9	102.4	60.5
1952 I	41.2	66.9	40.5	58.3	70.7	61.6	101.9	60.5
1952 II	41.7	66.7	40.7	58.2	71.6	62.5	102.4	61.0
1952 III	41.6	66.9	40.9	58.4	71.1	62.1	101.5	61.2
1952 IV	42.1	67.9	41.2	59.2	71.1	62.0	102.2	60.7
1953 I	42.7	68.1	41.4	59.4	71.8	62.6	103.0	60.8
1953 II	43.1	68.0	41.7	59.4	72.5	63.4	103.4	61.3
1953 III	42.8	67.6	42.0	59.2	72.3	63.4	102.1	62.1
1953 IV	42.8	67.5	42.2	59.3	72.2	63.3	101.4	62.5
1954 I	42.7	67.4	42.4	59.3	72.1	63.3	100.6	63.0
1954 II	42.5	67.3	42.7	59.3	71.7	63.2	99.5	63.5
1954 III	43.3	67.4	43.0	59.4	72.9	64.2	100.6	63.9
1954 IV	44.1	68.4	43.3	60.2	73.3	64.5	101.9	63.3
1955 I	45.2	69.0	43.6	60.7	74.4	65.5	103.5	63.2
1955 II	45.8	69.2	44.0	61.0	75.1	66.1	104.0	63.6
1955 III	46.7	70.1	44.5	61.7	75.7	66.6	105.1	63.4
1955 IV	47.0	71.0	44.9	62.5	75.2	66.1	104.7	63.1
1956 I	47.2	71.6	45.2	63.0	75.0	65.9	104.6	63.1
1956 II	48.1	72.2	45.5	63.5	75.7	66.6	105.6	63.1
1956 III	48.2	72.1	45.9	63.6	75.9	66.8	105.0	63.6
1956 IV	48.2	72.1	46.2	63.6	75.8	66.9	104.3	64.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	48.4	72.1	46.6	63.7	75.9	67.1	103.9	64.6
1957 II	48.7	72.4	47.0	64.0	76.0	67.3	103.6	64.9
1957 III	48.8	72.5	47.4	64.2	75.9	67.3	102.9	65.4
1957 IV	48.9	71.5	47.7	63.7	76.9	68.5	102.5	66.8
1958 I	48.4	70.5	48.0	63.1	76.7	68.6	100.8	68.1
1958 II	48.7	69.8	48.3	62.7	77.7	69.7	100.8	69.2
1958 III	49.5	70.7	48.6	63.4	78.0	70.0	101.7	68.8
1958 IV	51.0	71.6	49.0	64.1	79.5	71.2	104.1	68.4
1959 I	51.7	72.1	49.3	64.6	80.0	71.6	104.8	68.3
1959 II	52.8	73.0	49.8	65.4	80.7	72.2	106.0	68.1
1959 III	52.6	73.5	50.2	65.8	80.0	71.6	104.8	68.3
1959 IV	52.9	73.5	50.6	65.9	80.2	72.0	104.5	68.8
1960 I	53.4	73.4	51.0	66.1	80.9	72.7	104.7	69.5
1960 II	53.6	74.0	51.5	66.6	80.5	72.5	104.1	69.6
1960 III	53.6	74.1	51.9	66.8	80.3	72.4	103.3	70.0
1960 IV	53.4	73.9	52.3	66.8	79.9	72.2	102.2	70.7
1961 I	54.0	73.7	52.6	66.8	80.8	73.2	102.6	71.4
1961 II	54.6	73.2	53.0	66.6	81.9	74.5	102.9	72.4
1961 III	54.9	73.4	53.5	66.9	82.1	74.8	102.7	72.9
1961 IV	56.2	73.9	53.9	67.4	83.4	76.0	104.2	73.0
1962 I	56.9	74.1	54.4	67.7	84.1	76.8	104.5	73.5
1962 II	57.2	74.9	55.0	68.4	83.6	76.3	104.1	73.3
1962 III	57.8	74.7	55.5	68.5	84.4	77.3	104.1	74.3
1962 IV	57.9	74.1	56.0	68.2	84.8	78.1	103.4	75.5
1963 I	57.9	74.7	56.5	68.8	84.2	77.6	102.6	75.6
1963 II	58.5	75.2	57.0	69.3	84.5	77.8	102.7	75.8
1963 III	59.5	75.4	57.5	69.6	85.4	78.9	103.4	76.3
1963 IV	59.8	76.0	58.1	70.2	85.1	78.6	102.9	76.4
1964 I	61.3	76.6	58.6	70.8	86.6	80.0	104.6	76.5
1964 II	61.9	76.9	59.3	71.2	87.0	80.6	104.5	77.1
1964 III	62.9	77.1	59.9	71.6	87.8	81.6	104.9	77.8
1964 IV	63.6	78.1	60.5	72.4	87.8	81.4	105.1	77.4
1965 I	64.6	78.7	61.2	73.1	88.4	82.1	105.6	77.7
1965 II	65.6	79.4	61.9	73.8	88.9	82.6	106.0	77.9
1965 III	65.9	79.1	62.8	73.9	89.2	83.4	105.0	79.4
1965 IV	68.1	79.6	63.2	74.4	91.5	85.5	107.6	79.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	69.1	80.3	63.9	75.1	92.0	86.0	108.0	79.6
1966 II	68.9	80.5	64.7	75.5	91.2	85.6	106.5	80.4
1966 III	69.7	80.9	65.5	76.0	91.6	86.1	106.4	80.9
1966 IV	69.9	80.6	66.2	76.1	91.9	86.7	105.6	82.1
1967 I	70.2	80.6	66.8	76.3	92.1	87.1	105.2	82.8
1967 II	71.4	80.6	67.4	76.5	93.3	88.6	105.9	83.6
1967 III	72.3	81.0	68.1	77.0	93.9	89.3	106.2	84.0
1967 IV	72.8	81.4	68.8	77.5	94.0	89.5	105.9	84.5
1968 I	73.7	81.6	69.5	77.9	94.7	90.4	106.1	85.2
1968 II	75.0	82.4	70.3	78.7	95.3	91.0	106.7	85.3
1968 III	76.4	83.2	71.1	79.5	96.1	91.8	107.5	85.4
1968 IV	76.8	83.8	71.8	80.2	95.7	91.6	106.8	85.7
1969 I	77.1	85.1	72.6	81.3	94.9	90.6	106.1	85.4
1969 II	77.7	86.0	73.5	82.2	94.6	90.4	105.7	85.5
1969 III	77.7	86.7	74.4	82.9	93.7	89.7	104.4	85.8
1969 IV	77.5	86.6	75.2	83.2	93.1	89.4	103.1	86.8
1970 I	77.9	86.9	75.9	83.6	93.2	89.6	102.7	87.3
1970 II	78.3	86.5	76.6	83.6	93.6	90.5	102.2	88.6
1970 III	79.6	86.3	77.4	83.8	95.0	92.2	102.8	89.7
1970 IV	78.5	87.0	78.1	84.4	92.9	90.2	100.5	89.7
1971 I	80.3	87.3	78.8	84.9	94.5	91.9	101.8	90.3
1971 II	80.4	87.8	79.6	85.5	94.1	91.6	101.0	90.7
1971 III	81.6	87.6	80.4	85.7	95.2	93.1	101.5	91.8
1971 IV	82.3	88.9	81.1	86.8	94.8	92.5	101.4	91.3
1972 I	83.9	89.6	81.9	87.5	95.9	93.6	102.4	91.4
1972 II	85.2	90.0	82.8	88.0	96.8	94.7	102.9	92.0
1972 III	86.4	90.4	83.6	88.6	97.5	95.6	103.3	92.5
1972 IV	87.5	91.0	84.5	89.3	97.9	96.2	103.5	92.9
1973 I	90.0	92.2	85.5	90.5	99.5	97.6	105.3	92.7
1973 II	89.4	93.2	86.5	91.5	97.7	95.9	103.3	92.8
1973 III	89.6	94.1	87.5	92.4	97.0	95.3	102.4	93.1
1973 IV	90.4	94.3	88.5	92.9	97.3	95.9	102.2	93.9
1974 I	90.4	94.3	89.3	93.2	97.0	95.8	101.2	94.7
1974 II	89.7	95.1	90.1	94.0	95.4	94.3	99.5	94.8
1974 III	88.3	95.0	90.9	94.2	93.7	93.0	97.1	95.7
1974 IV	88.3	94.3	91.6	94.0	93.9	93.6	96.4	97.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	88.0	93.1	92.0	93.4	94.2	94.4	95.7	98.7
1975 II	89.0	92.7	92.5	93.2	95.5	96.1	96.3	99.8
1975 III	89.9	93.5	93.1	94.0	95.6	96.1	96.5	99.6
1975 IV	90.6	94.8	93.7	95.1	95.3	95.5	96.7	98.8
1976 I	93.4	95.8	94.3	95.9	97.4	97.6	99.0	98.5
1976 II	94.1	95.7	95.1	96.2	97.8	98.3	98.9	99.4
1976 III	94.5	96.0	95.8	96.6	97.8	98.3	98.6	99.8
1976 IV	94.8	96.9	96.5	97.4	97.3	97.8	98.2	99.6
1977 I	97.6	98.0	97.3	98.4	99.2	99.6	100.3	99.3
1977 II	99.3	99.8	98.2	99.6	99.7	99.5	101.1	98.4
1977 III	101.1	100.9	99.2	100.5	100.6	100.2	102.0	98.3
1977 IV	102.0	101.9	100.0	101.4	100.6	100.1	102.0	98.2
1978 I	102.5	102.8	100.9	102.3	100.2	99.7	101.6	98.1
1978 II	105.0	105.4	101.9	104.3	100.6	99.6	103.0	96.7
1978 III	104.9	105.9	102.9	105.0	100.0	99.1	102.0	97.1
1978 IV	106.1	107.5	103.8	106.3	99.8	98.7	102.2	96.6
1979 I	107.2	108.7	104.7	107.5	99.8	98.6	102.4	96.3
1979 II	106.4	109.0	105.7	108.0	98.5	97.6	100.6	97.0
1979 III	107.4	110.4	106.7	109.2	98.3	97.3	100.7	96.6
1979 IV	108.1	111.2	107.5	110.0	98.3	97.2	100.6	96.7
1980 I	108.6	111.8	108.3	110.7	98.1	97.2	100.3	96.9
1980 II	106.6	110.1	109.1	109.9	97.0	96.8	97.8	99.1
1980 III	108.8	110.5	109.9	110.5	98.5	98.4	99.0	99.4
1980 IV	108.8	112.2	110.8	111.8	97.3	97.0	98.2	98.8
1981 I	110.9	113.1	112.0	112.9	98.3	98.1	99.0	99.1

May 22, 1981

are the respective shares of gross income originating by industry, after allocating net proprietors' income between compensation of labor and of capital. Multiple-input productivity is then defined as:

$$\text{Multiple-input productivity} = \frac{\text{Index of output}}{W_L \text{*index of labor} + W_k\text{*index of capital}}$$

(where W_L = labor share, W_k = capital share, and $W_L + W_k = 1.0$)

All indexes are based on 1977=100, to reflect the change in base recently adopted by the B.L.S.

Goods and Services Producing Segments

For all series, the Goods Producing Segment includes farming, manufacturing, mining and construction. The Services Producing Segment includes transportation, communications, public utilities, wholesale and retail trade, finance and insurance, real estate and "other" services.

Benchmark N.I.P.A. Revisions

The output and capital series reflect the revisions of the National Income and Product Account based on the new 1977 Census benchmark, except for the estimate of nonfarm nonmanufacturing fixed capital stock.

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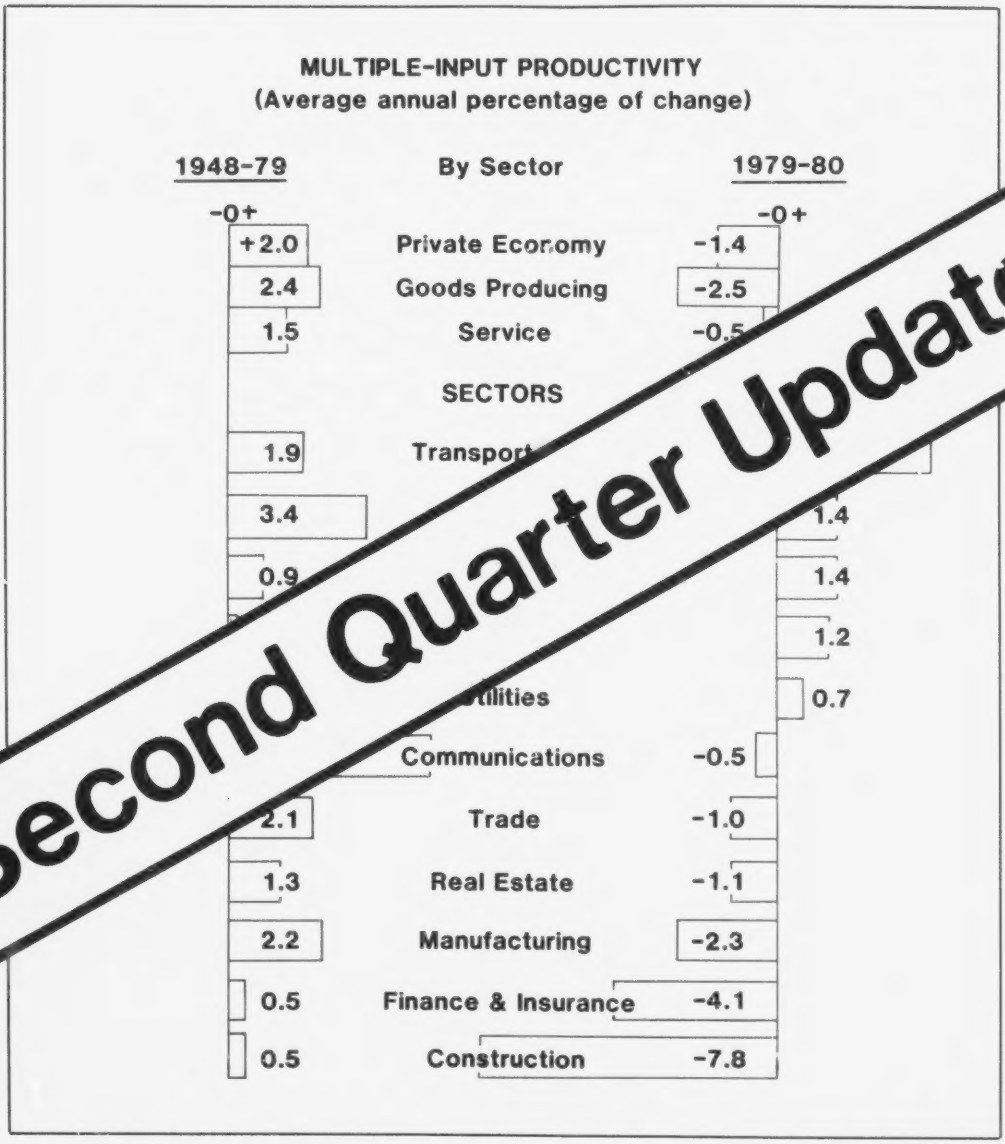
MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No.2
October 1981



Second Quarter Update

AMERICAN PRODUCTIVITY CENTER
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FIRST, SECOND QUARTER PRODUCTIVITY GAINS SIGNAL APPARENT REVERSAL OF THREE-YEAR DECLINE

Productivity for the private business economy grew at an annual rate of 1.5 percent during second quarter 1981, according to the American Productivity Center's weighted labor/capital measurement service, the Multiple Input Productivity Index. This rise follows a strong first quarter gain of 4.3 percent and apparently indicates the economy's break from the productivity doldrums of the past three years.

The modest second quarter gains overlay significant variations in productivity dynamics for the several segments of the economy. The average for goods-producing industries improved at a strong 8.8 percent average, reflecting:

- A modest gain of 3.4 percent for manufacturing
- A surprisingly strong gain of 6.8 percent for mining
- An even more surprising gain of 8.8 percent for construction; and
- A truly spectacular surge in the seasonally volatile farming sector of 57.2 percent, based on an output gain of 43 percent; a decline of 27 percent in labor input; and a rise of 15 percent in capital input -- all at annual rates.

In sharp contrast, average productivity for the service industries declined 3.1 percent in second quarter 1981. While quarterly data are not available for individual services sectors, it appears likely that productivity sagged in real estate, trade and "other services" activities as inflation and high interest rates forced a decline in purchasing and in other phases of economic activity after a strong first quarter.

As is usual in periods of rising productivity, labor productivity rose more strongly than did output per unit of capital input, at a 2.8 percent annual rate. A drop in labor input accompanied by no change in capital input resulted in a second quarter rise in the capital/labor ratio.

Total factor (multiple-input) productivity for private business in 1981-II rose almost to the 1977 level while the labor productivity index was one percent above the 1977 level. Despite these gains, economists anticipate a lackluster performance during the third and fourth quarters of 1981. Overall, the average gain for calendar 1981 is likely to be approximately 1.5 percent.

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This analysis should be treated as an addition to Multiple Input Productivity Indexes, Vol. 2, Number 1. The tables are numbered accordingly.

Table VII
Quarterly Indexes of Productivity
1980 I to 1981 II
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.8	99.5	100.5	99.1
	II	98.3	99.1	96.8	102.4
	III	98.4	99.4	96.4	103.1
	IV	98.5	99.1	97.3	101.9
1981	I	99.5	100.3	98.2	102.1
	II	99.9	101.0	97.9	103.1
Percent Change: (Annual Rate)					
1981	I	4.3	4.6	3.7	0.9
	II	1.5	2.8	-1.1	4.0

2. Goods Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.6	101.5	99.3	102.2
	II	96.1	100.4	93.1	107.8
	III	93.8	98.4	89.9	109.5
	IV	96.5	100.4	94.2	106.6
1981	I	98.2	102.1	96.1	106.2
	II	100.3	105.1	96.3	109.2
Percent Change: (Annual Rate)					
1981	I	7.2	6.7	8.6	-1.7
	II	8.8	12.3	0.5	11.7

3. Service Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	91.9	101.0	101.0	100.0
	II	91.2	101.0	99.1	101.9
	III	92.8	102.8	100.8	101.9
	IV	91.3	101.0	99.3	101.7
1981	I	91.8	101.8	99.5	102.3
	II	91.1	100.9	98.8	102.1
Percent Change: (Annual Rate)					
1981	I	2.3	3.2	0.8	2.4
	II	-3.1	-3.4	-2.6	-0.9

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 II
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

4. Nonfinancial Corporate Business

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	100.2	103.5	96.8
	II	100.0	100.1	99.9	100.2
	III	101.4	101.8	100.9	100.8
	IV	100.9	100.6	102.2	98.5
1981	I	103.8	103.3	105.7	97.8
	II	103.7	103.6	104.4	99.2
Percent Change: (Annual Rate)					
1981	I	12.0	11.2	14.5	-2.9
	II	-0.6	0.9	-4.8	6.0

5. Farming

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	111.8	115.9	108.4	106.9
	II	116.7	124.7	110.3	113.0
	III	100.4	105.9	95.9	110.4
	IV	97.7	100.4	95.5	105.1
1981	I	99.5	103.1	96.5	106.9
	II	111.4	120.2	104.3	115.2
Percent Change: (Annual Rate)					
1981	I	7.6	11.4	4.2	6.9
	II	57.2	84.5	36.8	34.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 II
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

6. Manufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	102.0	98.3	103.8
	II	98.3	100.8	91.8	109.7
	III	97.4	100.5	89.6	112.2
	IV	100.8	103.4	94.1	109.8
1981	I	101.6	104.2	95.0	109.7
	II	102.5	105.3	95.2	110.6
Percent Change:	(Annual Rate)				
1981	I	3.3	3.2	3.6	-0.4
	II	3.4	4.3	0.9	3.4

7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.5	97.6	100.5	97.1
	II	97.3	97.2	97.9	99.3
	III	98.6	98.6	99.0	99.6
	IV	97.4	97.2	98.2	99.0
1981	I	98.5	98.4	99.0	99.3
	II	97.9	98.1	98.1	100.0
Percent Change:	(Annual Rate)				
1981	I	4.3	4.7	3.5	1.2
	II	-2.2	-1.3	-3.8	2.6

Note: Percent changes are average annual rates of change from the previous quarter. First and second quarter 1981 are revised, as published by the Bureau of Labor Statistics, Department of Labor, August 26, 1981 release.

SPECIAL FEATURE

LEVELS OF PRODUCTIVITY IN MANUFACTURING INDUSTRY GROUPS

In addition to the quarterly trend data for the major segments of the economy, this edition of the Multiple Input Productivity Index includes computations on levels of output per hour and capital stock per hour. This data for the manufacturing industry groups covers the years 1948, 1965, 1973 and 1980.

For all manufacturing industries, output per hour expressed in "real" (1972 constant) dollars, was $8.20 in 1980. This was slightly lower than the 1979 level, but significantly higher than the figures for 1965 and 1973, and more than double the level for 1948 ($3.65). Since these "real" dollar output per hour figures overcome the effects of inflation, they are a revealing reflection of the average gain in earning power which accrues to rising productivity.

Multiplying the 1980 Bureau of Labor Statistics estimate of 39.7 hours per week in manufacturing times 52 weeks*, the average manufacturing employed person accounted for a total output of $16,928.08 in 1980. This contrasts with the 1948 level of 40 hours per week at $3.65 per hour, for an annual output total of $7,592. (Table VIII e).

Just as in the case of productivity trends, the data on productivity levels reveals major divergences between the manufacturing industry groups. Output per hour in 1980, for example, ranged from a high of $19.61 for petroleum refining down to $3.44 for tobacco products -- a range of nearly six to one. (The range for 1973 was a full seven to one.)

With the notable exception of tobacco, those industries with the highest capital stock per hour also recorded the highest levels of labor productivity. (Chart 1 and Table VIII f).

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* The output figure is related to the BLS estimates of "hours paid for."

Chart 1 Productivity Levels
Relationship of Capital Stock/Hour
to Labor Productivity Levels

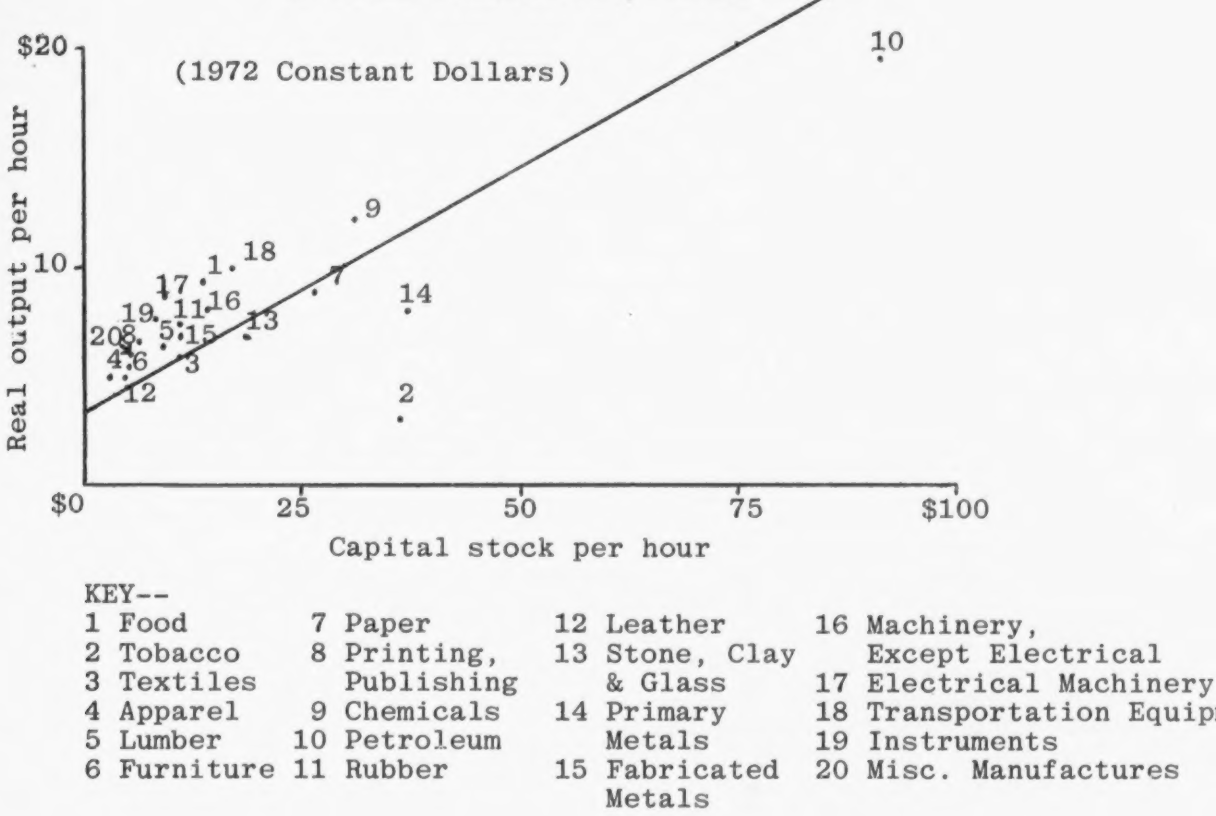


Table VIII e
REAL OUTPUT PER HOUR
(IN 1972 CONSTANT DOLLARS)

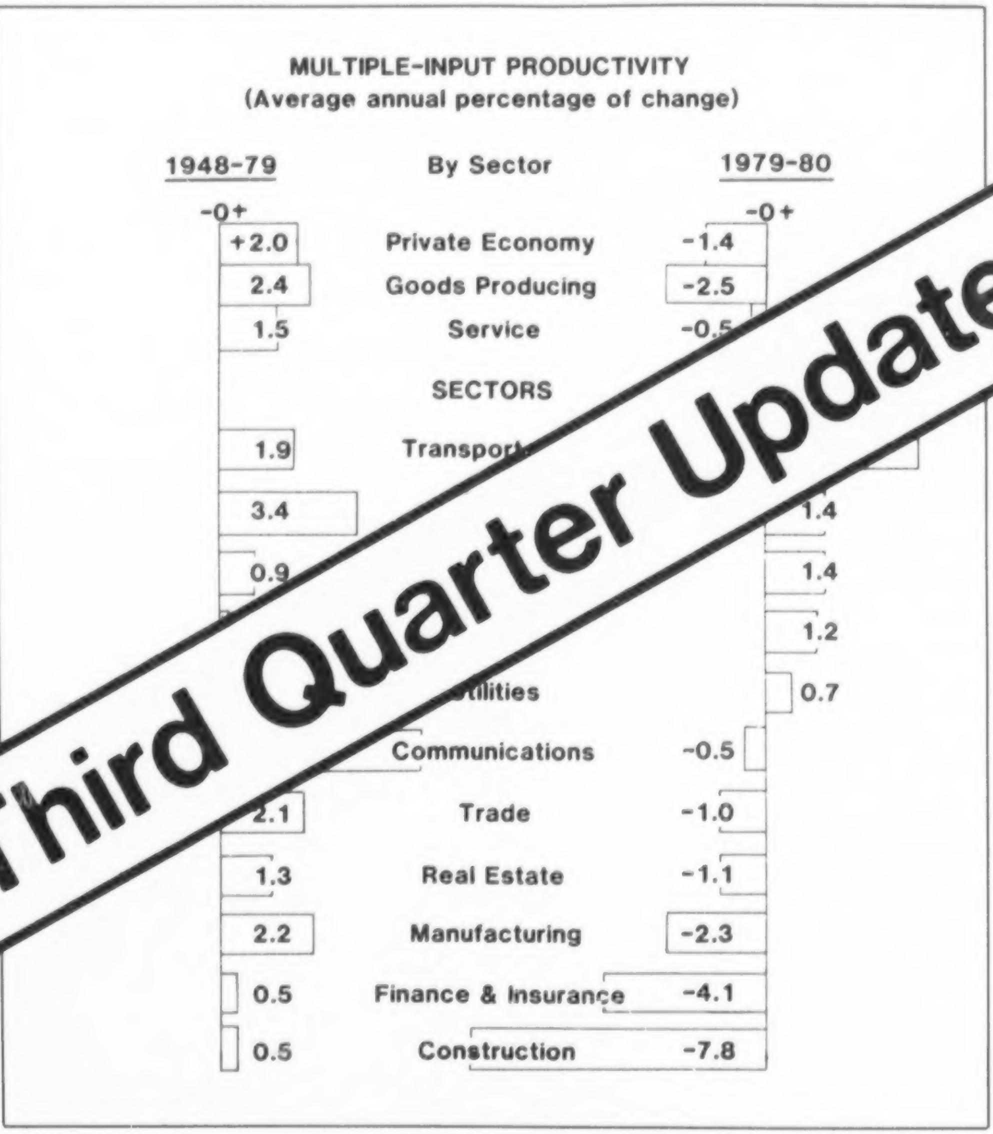
	1948	1965	1973	1979	1980
All Manufacturing	$ 3.65	$ 6.03	$ 7.52	$ 8.23	$ 8.20
Food	3.51	5.98	8.56	8.90	8.90
Tobacco	1.06	2.06	2.83	3.34	3.44
Textiles	1.55	3.60	4.65	6.05	5.93
Apparel	2.20	3.07	4.02	5.11	4.95
Lumber	2.52	5.12	5.90	6.52	6.37
Furniture	2.91	4.05	4.48	5.60	5.51
Paper	3.71	5.68	8.13	8.77	8.97
Printing, Publishing	4.12	6.19	6.94	6.58	6.60
Chemicals	3.36	7.31	10.67	12.39	12.23
Petroleum	6.19	15.50	19.95	18.66	19.61
Rubber	4.06	6.12	7.22	7.31	7.58
Leather	2.98	3.56	4.27	4.57	4.80
Stone, Clay & Glass	4.11	6.27	6.90	7.26	7.04
Primary Metals	6.36	8.16	9.18	8.47	8.12
Fabricated Metals	4.02	5.77	6.50	7.00	6.88
Machinery, Except Electrical	4.74	6.35	7.43	8.05	8.10
Electrical Machinery	2.48	5.21	6.81	8.50	8.49
Transportation Equipment	4.27	7.81	9.99	10.62	10.28
Instruments	3.02	5.79	7.38	7.97	7.79
Miscellaneous Manufactures	2.54	3.95	5.50	6.26	6.44

Table VIII f
CAPITAL STOCK PER HOUR
(IN 1972 CONSTANT DOLLARS)

	1948	1965	1973	1979	1980
All Manufacturing	$ 7.03	$ 9.96	$12.11	$14.52	$15.50
Food	8.35	10.01	11.75	13.80	14.15
Tobacco	8.38	21.19	28.33	35.56	36.63
Textiles	2.54	7.64	8.83	10.65	11.08
Apparel	1.81	2.04	2.80	3.48	3.55
Lumber	6.01	5.12	6.60	8.71	9.78
Furniture	3.84	3.94	4.75	5.89	6.24
Paper	14.17	16.83	19.63	25.59	27.58
Printing, Publishing	5.94	5.66	7.34	7.92	7.90
Chemicals	14.27	21.94	25.05	31.19	32.55
Petroleum	30.55	59.25	71.58	79.66	91.04
Rubber	6.87	8.26	9.11	10.36	11.20
Leather	1.49	2.13	3.20	3.95	4.14
Stone, Clay & Glass	8.30	13.04	14.50	17.67	19.40
Primary Metals	13.37	22.86	27.90	32.94	37.93
Fabricated Metals	4.11	7.29	8.42	10.48	11.37
Machinery, Except Electrical	5.60	8.93	11.42	13.45	14.10
Electrical Machinery	4.86	5.68	7.92	9.38	9.83
Transportation Equipment	7.66	8.79	12.19	14.54	17.19
Instruments	4.77	6.51	8.14	8.45	8.53
Miscellaneous Manufactures	2.22	4.06	4.77	5.11	5.55

MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No. 3
February 1982



Third Quarter Update

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THIRD QUARTER PRODUCTIVITY OFF

Despite the onset of a full-scale recession in the third quarter of calendar 1981, total factor productivity for the private business economy declined only a modest 1.7%.* This follows a revised 1.3% rise in the second quarter and the strong 4.3% increase in the first quarter. As a result, APC's earlier prediction of a modest productivity increase for calendar year 1981 seems assured.

Expressed in labor productivity terms, the third quarter decline of 1.0% succeeded a revised increase of 3.5% in the second and 4.6% in the first quarter. Hence, labor productivity is expected to rise by over 1% for the entire calendar year (even assuming a drop of 2% or more in the fourth quarter). Thus the labor productivity behavior in 1981 will reverse the three year cycle (1978-80) of declining output per hour.

There were sharp differences in the weighted labor/capital productivity change rates for the goods-producing and services-producing industry segments, with a very strong third quarter growth of 5.5% for the goods producers contrasted with a drop of 6.6% for the services segment. These changes, when combined with equally-substantial differences in the first and second quarters (goods, 7.2% and 4.8%, services 0.9% and -1.1%),assure a strong gain for the goods industries in 1981 and a similarly substantial decline for the services segment.

Despite the absence of continued output growth, the important manufacturing industry sector continued its relatively favorable productivity growth pattern in the third quarter, with a 0.1% total factor and a 1.3% labor productivity rise in the third quarter. These follow stronger increases of over 3.0% in the first and second quarters in both productivity measures. Hence, the indication is that despite an anticipated productivity drop in the fourth quarter as the deepening recession cuts plant capacity utilization, 1981 manufacturing industry productivity should rise by nearly 2.0% in output per hour and slightly less for the weighted capital/labor series.

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* All data stated at annual rates

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Data for manufacturing industry groups and non-farm, non-manufacturing sectors underwent minor revisions for 1979 and major revisions for 1980. The revisions were necessary because of changes in basic input and output statistics issued by the BLS.

This analysis should be treated as an addition to Multiple Input Productivity Indexes, Vol. 2, Numbers 1 and 2. The tables are numbered accordingly.

Table I
Multiple-Input Productivity By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80

1. Multiple-Input Productivity

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.3
Service Producing Sector	1.5	1.8	1.4	0.5	-0.6
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing Industry	2.2	2.6	2.3	0.8	-2.3
Nonfarm Nonmanufacturing Industry	1.3	1.9	1.1	0.1	-0.9
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

2. Labor Productivity
(Output per hour worked)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-0.8
Service Producing Sector	2.0	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing Industry	2.7	3.0	2.8	1.5	-0.5
Nonfarm Nonmanufacturing Industry	1.8	2.4	1.8	0.2	-0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

3. Capital Productivity
(Output per unit of capital input)

	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.7
Service Producing Sector	0.3	0.5	-0.1	0.1	-2.0
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing Industry	0.3	0.9	0.3	-1.5	-7.2
Nonfarm Nonmanufacturing Industry	0.1	0.4	-0.4	-0.3	-2.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

November 4,1981 (Revised 1979,1980)

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
	1. Output (Real product, in 1972 dollars)				
Private Business Economy	3.5%	3.6%	3.9%	2.7%	-0.8%
Goods Producing Sector	3.2	3.6	3.3	1.7	-4.0
Service Producing Sector	3.7	3.6	4.3	3.4	1.5
Farming	1.1	0.9	0.9	2.0	1.3
Manufacturing Industry	3.6	4.0	4.1	2.1	-4.6
Nonfarm Nonmanufacturing Industry	3.6	3.6	3.9	3.0	0.9
Nonfinancial Corporate Business	4.4	4.6	5.0	3.0	-0.7
	2. Labor Input (Hours worked)				
Private Business Economy	0.9%	0.4%	1.4%	1.9%	-0.5%
Goods Producing Sector	0.1	-0.4	0.6	0.8	-3.3
Service Producing	1.7	1.2	2.1	2.7	1.4
Farming	-3.6	-4.2	-3.9	-1.6	-2.3
Manufacturing Industry	1.0	1.0	1.2	0.6	-4.1
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.1
Nonfinancial Corporate Business	1.9	1.5	2.8	2.0	-1.2

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	2.9%
Goods Producing Sector	2.5	2.4	2.5	2.9	1.8
Service Producing Sector	3.5	3.1	4.5	3.3	3.5
Farming	1.2	1.2	0.9	1.4	1.8
Manufacturing Industry	3.3	3.1	3.7	3.6	2.8
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.1
Nonfinancial Corporate Business	3.9	3.7	5.1	2.7	0.4
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.2
Service Producing Sector	1.7	1.8	2.3	0.6	2.0
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing Industry	2.4	2.1	2.5	3.1	7.2
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.5	1.9
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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Table III a.

Multiple-Input Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.3
Service Producing Sector	1.5	1.8	1.4	0.5	-0.6
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing	2.2	2.6	2.3	0.8	-2.3
Food	2.7	2.9	4.1	0.0	7.4
Tobacco	1.8	2.3	2.1	0.3	0.8
Textiles	3.6	3.9	3.0	3.7	-3.8
Apparel	2.6	2.0	3.0	3.8	-0.5
Lumber	2.8	4.5	1.2	0.2	-4.6
Furniture	2.0	2.1	0.8	3.3	1.0
Paper	2.3	2.2	4.0	0.0	-5.7
Printing & Publishing	1.4	2.4	1.0	-1.1	0.7
Chemicals	3.4	3.9	4.2	1.1	-4.4
Petroleum	1.9	3.4	2.0	-2.3	-6.5
Rubber	1.7	2.3	2.0	-0.3	-2.9
Leather	1.2	1.0	1.8	1.0	-2.5
Stone, Clay & Glass	1.4	2.0	0.9	0.1	-2.8
Primary Metals	0.3	0.9	0.9	-1.9	-5.8
Fabricated Metals	1.4	1.7	1.3	0.6	-1.9
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	-1.5
Electrical Machinery	3.7	4.3	2.8	3.2	0.5
Transportation Equipment	2.5	3.4	2.3	0.3	-10.6
Instruments	2.8	3.5	2.4	1.1	1.1
Miscellaneous Manufac.	2.6	2.3	3.6	2.0	2.0
Nonfarm Nonmanufacturing	1.3	1.9	1.1	0.1	-0.9
Mining	0.9	2.3	1.7	-4.0	-1.1
Construction	0.5	2.4	-1.0	-3.1	-5.5
Transportation	1.9	2.0	2.4	0.9	-2.2
Railroad	2.8	4.2	1.2	0.7	2.6
Nonrail	1.1	0.5	2.7	0.9	-3.7
Communications	4.6	5.4	3.2	4.3	4.8
Public Utilities	3.2	5.6	1.5	-0.9	-0.9
Trade	2.1	2.4	2.6	0.5	-2.9
Finance & Insurance	0.5	1.1	0.5	-0.9	-1.5
Real Estate	1.3	1.9	0.0	1.2	2.1
Services	0.2	0.3	-0.1	0.2	1.8
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

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Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-0.8
Service Producing Sector	2.0	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing	2.7	3.0	2.8	1.5	-0.5
Food	3.0	3.2	4.6	0.6	6.9
Tobacco	3.7	4.0	4.0	2.6	2.1
Textiles	4.5	5.0	3.3	4.5	-2.5
Apparel	2.8	2.0	3.3	4.3	2.3
Lumber	3.1	4.3	1.8	1.5	-1.2
Furniture	2.2	2.1	1.1	3.9	2.7
Paper	2.8	2.5	4.5	1.3	-3.6
Printing & Publishing	1.5	2.4	1.5	-0.8	1.0
Chemicals	4.3	4.8	4.8	2.5	-2.7
Petroleum	3.6	5.5	3.3	-1.2	2.4
Rubber	1.9	2.5	2.2	-0.0	-3.3
Leather	1.5	1.2	2.2	1.6	0.3
Stone, Clay & Glass	1.9	2.6	1.2	0.9	-0.2
Primary Metals	0.9	1.5	1.5	-1.4	-3.2
Fabricated Metals	1.8	2.1	1.5	1.3	0.3
Machinery, exc. Elec.	1.7	1.7	2.0	1.3	-0.6
Electrical Machinery	4.1	4.5	3.4	3.8	2.0
Transportation Equipment	3.0	3.6	3.1	1.0	-6.0
Instruments	3.2	3.8	3.1	1.2	0.5
Miscellaneous Manufac.	3.0	2.8	4.0	2.2	4.0
Nonfarm Nonmanufacturing	1.8	2.4	1.8	0.2	-0.2
Mining	1.9	4.3	2.4	-5.2	-2.1
Construction	0.6	2.6	-0.9	-3.0	-4.7
Transportation	2.2	2.3	2.6	1.2	-1.6
Railroad	3.3	4.8	1.7	1.1	4.1
Nonrail	1.5	0.8	3.2	1.3	-2.9
Communications	5.9	6.5	4.8	5.8	5.7
Public Utilities	4.9	6.9	3.8	0.8	-0.7
Trade	2.5	2.8	3.2	0.8	-2.0
Finance & Insurance	1.1	1.3	1.2	-0.1	-0.7
Real Estate	0.4	1.2	0.1	-1.4	1.1
Services	0.6	0.9	0.4	-0.0	1.3
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

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Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.7
Service Producing Sector	0.3	0.5	-0.1	0.1	-2.0
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing	0.3	0.9	0.3	-1.5	-7.2
Food	1.4	2.1	2.5	-2.0	5.5
Tobacco	-0.9	-1.4	0.4	-1.3	-0.2
Textiles	-0.3	-1.6	1.5	1.2	-6.4
Apparel	0.6	1.3	-0.9	0.6	-1.0
Lumber	1.9	5.2	-1.4	-3.0	-11.8
Furniture	0.8	2.0	-1.2	0.3	-4.0
Paper	0.9	1.5	2.5	-3.1	-10.4
Printing & Publishing	0.6	2.6	-1.7	-2.1	0.9
Chemicals	1.7	2.2	3.1	-1.2	-6.8
Petroleum	0.5	1.5	0.9	-2.9	-10.7
Rubber	0.6	1.3	1.0	-2.0	-8.6
Leather	-1.5	-0.7	-3.0	-1.8	-6.9
Stone, Clay & Glass	-0.5	-0.1	-0.1	-2.4	-9.2
Primary Metals	-2.0	-1.7	-1.0	-4.0	-15.2
Fabricated Metals	-1.2	-1.2	-0.3	-2.4	-8.1
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.4	-5.0
Electrical Machinery	1.9	3.5	-0.7	0.9	-3.3
Transportation Equipment	0.9	2.8	-1.0	-1.9	-20.7
Instruments	1.2	1.8	0.4	0.7	-0.2
Miscellaneous Manufac.	0.4	-0.6	2.0	1.1	-5.3
Nonfarm Nonmanufacturing	0.1	0.5	-0.4	-0.3	-1.9
Mining	-1.3	-2.0	0.7	-2.3	0.9
Construction	-2.1	-1.7	-2.9	-2.3	-4.2
Transportation	0.3	-0.1	1.3	0.0	-6.2
Railroad	-0.6	-0.3	-1.1	-0.8	-2.9
Nonrail	-0.9	-1.4	0.0	-0.8	-7.4
Communications	0.8	0.3	0.8	2.5	4.1
Public Utilities	1.0	2.8	-0.5	-2.0	-1.3
Trade	-1.1	-1.2	-1.2	-0.8	-6.1
Finance & Insurance	-2.9	-1.4	-4.6	-4.9	-5.9
Real Estate	1.4	2.0	0.0	1.5	2.3
Services	-0.8	-1.3	-1.0	0.6	1.7
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

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Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.2
Service Producing Sector	1.7	1.8	2.3	0.6	2.0
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.1	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.6	1.4
Tobacco	4.7	5.5	3.7	4.0	2.3
Textiles	4.7	6.7	1.8	3.2	4.1
Apparel	2.1	0.6	4.2	3.7	3.3
Lumber	1.2	-0.9	3.2	4.7	12.0
Furniture	1.3	0.1	2.4	3.5	7.0
Paper	1.9	1.0	2.0	4.5	7.6
Printing & Publishing	0.9	-0.2	3.3	1.3	0.1
Chemicals	2.5	2.5	1.7	3.7	4.4
Petroleum	3.1	4.0	2.4	1.8	14.6
Rubber	1.3	1.1	1.2	2.0	5.8
Leather	3.1	1.9	5.3	3.5	7.8
Stone, Clay & Glass	2.5	2.7	1.3	3.3	9.9
Primary Metals	2.9	3.2	2.5	2.7	14.2
Fabricated Metals	3.1	3.4	1.8	3.8	9.2
Machinery, exc. Elec.	2.6	2.4	3.1	2.7	4.6
Electrical Machinery	2.2	0.9	4.2	2.9	5.5
Transportation Equipment	2.1	0.8	4.2	3.0	18.5
Instruments	1.9	2.0	2.7	0.5	0.7
Miscellaneous Manufac.	2.6	3.5	2.0	1.1	9.8
Nonfarm Nonmanufacturing	1.7	1.9	2.2	0.5	1.9
Mining	3.3	6.3	1.7	-3.0	-2.9
Construction	2.7	4.3	2.0	-0.8	-0.5
Transportation	1.9	2.4	1.3	1.2	4.9
Railroad	3.9	5.1	2.9	2.0	7.3
Nonrail	2.4	2.2	3.2	2.1	4.8
Communications	5.0	6.2	3.9	3.2	1.6
Public Utilities	3.8	4.0	4.3	2.8	0.6
Trade	3.6	4.0	4.4	1.6	4.4
Finance & Insurance	4.0	2.8	6.1	5.1	5.6
Real Estate	-0.9	-0.7	0.1	-2.9	-1.1
Services	1.4	2.1	1.5	-0.6	-0.4
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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UPDATE OF TABLES IV - VI
Annual Indexes
For Sectors and Industries
(1977=100)

Table	Industry Segment	Multi-Factor Productivity			Output per Unit Labor			Output per Unit Capital			Capital-Labor Ratio		
		1978	1979	1980	1978	1979	1980	1978	1979	1980	1978	1979	1980
IV	1. Private Business Economy	100.2	99.7	98.3	99.8	99.4	99.1	101.0	100.3	96.7	98.8	99.1	102.5
	2. Goods Producing	100.3	100.2	97.9	99.8	100.0	99.2	101.5	100.7	94.9	98.3	99.3	104.5
	3. Service Producing	100.1	99.3	98.7	99.8	98.9	98.9	100.7	100.1	98.1	99.1	98.8	100.9
	4. Nonfinancial Corporate Business	100.8	101.1	101.1	100.4	100.3	100.8	101.8	103.2	102.1	98.6	97.2	98.7
	5. Farming	98.0	104.7	106.2	98.1	107.4	111.3	97.9	102.2	101.7	100.2	105.1	109.5
	6. Manufacturing	101.0	101.4	99.1	100.9	101.9	101.4	101.2	99.9	92.7	99.6	102.0	109.4
	7. Nonfarm Nonmanufacturing	99.8	98.4	97.5	99.3	97.7	97.5	100.8	99.8	97.7	98.5	97.9	99.8
V	1. Mining	99.2	93.5	92.4	99.2	91.2	89.3	99.1	97.3	98.2	100.1	93.7	90.9
	2. Construction	95.5	89.2	84.3	95.3	89.0	84.9	103.1	99.7	95.5	92.4	89.3	88.9
	3. Transportation	102.4	101.1	98.9	101.8	100.8	99.2	104.6	104.1	97.6	97.4	96.9	101.6
	3a. Railroad	104.3	105.2	108.0	104.8	105.1	109.4	102.6	104.9	101.8	102.2	100.2	107.5
	3b. Nonrail	102.0	100.3	96.6	101.4	99.9	97.0	104.5	102.5	94.9	97.1	97.4	102.2
	4. Communications	103.8	107.9	113.1	104.1	108.5	114.7	103.4	107.2	111.6	100.7	101.2	102.8
	5. Public Utilities	100.0	98.3	97.4	99.4	98.6	97.8	100.3	98.7	97.4	99.1	99.9	100.5
	6. Trade	101.0	100.9	98.0	101.2	101.6	99.6	99.4	98.6	92.5	101.8	103.1	107.7
	7. Finance & Insurance	97.6	96.0	94.6	97.8	97.1	96.4	95.8	91.0	85.6	102.0	106.6	112.6
	8. Real Estate	99.3	96.4	98.4	92.1	84.9	85.8	100.3	97.8	100.0	91.9	86.8	85.8
	9. Services	97.9	96.3	98.1	97.6	94.9	96.2	99.0	98.4	100.0	98.7	96.5	96.1
	Manufacturing												
VI	1. Food	99.3	102.7	110.3	99.8	103.6	110.7	97.8	99.3	104.7	102.1	104.3	105.7
	2. Tobacco	99.8	101.6	102.5	100.6	103.5	105.8	99.4	100.4	100.2	101.2	103.2	105.6
	3. Textiles	101.6	104.8	100.8	101.9	105.8	103.2	100.5	102.3	95.8	101.4	103.4	107.7
	4. Apparel	104.6	108.8	109.3	104.6	109.6	112.1	104.4	106.4	105.4	100.2	103.1	106.4
	5. Lumber	96.5	96.1	91.6	97.0	97.3	96.1	95.6	93.4	82.3	101.5	104.2	116.7
	6. Furniture	103.3	107.4	108.5	103.2	108.5	111.4	104.1	103.5	99.3	99.1	104.8	112.2
	7. Paper	100.3	101.3	95.5	101.2	103.8	100.0	98.2	95.6	85.7	103.1	108.5	116.7
	8. Printing & Publishing	99.4	97.7	98.3	99.4	97.8	98.8	99.3	98.1	99.0	100.1	99.8	99.9
	9. Chemicals	100.2	103.2	98.6	100.7	104.8	102.0	99.4	100.8	93.9	101.4	104.0	108.6
	10. Petroleum	101.6	106.4	99.5	99.8	104.8	107.3	102.2	106.9	95.5	97.6	98.0	112.3
	11. Rubber	99.7	98.3	95.5	99.7	97.5	94.4	100.1	98.0	89.5	99.6	99.6	105.4
	12. Leather	99.2	101.0	98.5	99.1	102.5	102.9	100.0	96.8	90.1	99.1	105.9	114.1
	13. Stone, Clay & Glass	104.1	103.8	100.9	104.0	104.4	104.2	104.7	102.3	92.8	99.3	102.1	112.2
	14. Primary Metals	105.1	107.5	101.2	104.6	106.4	102.9	107.4	110.1	93.3	97.4	96.6	110.3
	15. Fabricated Metals	99.2	101.7	99.8	99.0	102.2	102.5	99.7	100.3	92.2	99.3	101.9	111.2
	16. Machinery exc. Electrical	99.9	100.5	99.0	99.5	100.5	99.8	101.1	99.6	94.6	98.4	100.9	105.6
	17. Electrical Machinery	106.6	107.5	108.1	106.6	108.0	110.2	106.9	106.3	102.8	99.7	101.6	107.2
	18. Transportation Equipment	98.1	90.3	80.7	98.2	92.0	86.5	97.8	85.9	68.1	100.4	107.2	127.0
	19. Instruments	101.5	100.3	101.3	101.2	99.1	99.6	102.7	102.5	102.4	98.6	96.7	97.3
	20. Misc. Manufactures	96.5	100.3	102.4	96.2	101.0	105.1	97.5	96.9	91.8	98.7	104.2	114.5

November 4, 1981r (Revised 1979, 1980)

Table VII
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.8	99.5	100.5	99.1
	II	98.3	99.1	96.8	102.4
	III	98.4	99.4	96.4	103.1
	IV	98.5	99.1	97.3	101.9
1981	I	99.5	100.3	98.2	102.1
	II	99.8	101.1	97.4	103.8
	III	99.4	100.9	96.6	104.4
Percent Change: (Annual Rate)					
1980	I	0.7	1.6	-1.2	2.8
	II	-5.9	-1.8	-14.0	14.2
	III	0.4	1.3	-1.5	2.8
	IV	0.5	-1.1	3.7	-4.6
1981	I	4.3	4.6	3.7	0.9
	II	1.3	3.5	-3.0	6.8
	III	-1.7	-1.0	-3.2	2.2

2. Goods Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.0	101.1	100.1	101.1
	II	95.4	98.6	93.4	105.6
	III	93.2	96.7	90.3	107.1
	IV	95.8	98.8	94.4	104.7
1981	I	98.2	101.4	96.4	105.2
	II	99.3	103.0	96.5	106.8
	III	100.7	104.5	97.7	106.9
Percent Change: (Annual Rate)					
1980	I	3.4	5.8	-3.0	9.1
	II	-13.9	-9.6	-24.1	19.1
	III	-9.0	-7.5	-12.5	5.7
	IV	11.8	9.0	19.3	-8.6
1981	I	10.2	10.8	8.7	1.9
	II	4.8	6.6	0.4	6.2
	III	5.5	5.7	5.1	0.6

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	90.7	98.5	100.8	97.7
	II	90.6	99.4	99.1	100.3
	III	92.2	101.2	100.7	100.5
	IV	90.7	99.4	99.4	100.0
1981	I	90.9	99.6	99.6	100.0
	II	90.6	99.9	98.3	101.7
	III	89.1	98.5	96.1	102.5
Percent Change: (Annual Rate)					
1980	I	-0.8	-1.3	-0.1	-1.3
	II	-0.1	3.8	-6.3	10.8
	III	7.1	7.5	6.6	0.8
	IV	-6.3	-7.0	-5.2	-2.0
1981	I	0.6	0.6	0.7	-0.1
	II	-1.1	1.5	-5.1	7.0
	III	-6.6	-5.5	-8.4	3.2

4. Nonfinancial Corporate Business

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	100.2	103.5	96.8
	II	100.0	100.1	99.9	100.2
	III	101.4	101.8	100.9	100.8
	IV	102.1	101.8	103.2	98.6
1981	I	103.9	103.4	105.7	97.8
	II	104.0	103.9	104.7	99.2
	III	103.6	103.7	103.7	100.0
Percent Change: (Annual Rate)					
1980	I	1.4	1.5	1.1	0.3
	II	-3.9	-0.5	-13.2	14.6
	III	6.0	6.7	4.0	2.7
	IV	2.4	0.0	9.5	-8.7
1981	I	7.3	6.4	9.8	-3.1
	II	0.5	1.9	-3.6	5.8
	III	-1.4	-0.5	-3.7	3.3

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

5. Farming

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	111.8	115.9	108.4	106.9
II	116.7	124.7	110.3	113.0
III	100.4	105.9	95.9	110.4
IV	97.7	100.4	95.5	105.1
1981 I	99.5	103.1	96.5	106.9
II	111.7	120.5	104.6	115.2
III	119.1	126.9	112.7	112.6
Percent Change: (Annual Rate)				
1980 I	25.7	40.5	13.3	24.0
II	18.9	33.8	7.1	24.9
III	-45.3	-48.0	-42.9	-9.0
IV	-10.3	-19.1	-1.6	-17.8
1981 I	7.6	11.4	4.2	6.9
II	58.6	86.1	38.0	34.8
III	29.5	23.3	34.9	-8.6

6. Manufacturing Industry

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	101.0	102.0	98.3	103.8
II	98.2	100.7	91.8	109.7
III	97.6	100.7	89.8	112.2
IV	100.7	103.2	94.0	109.8
1981 I	101.5	104.1	94.9	109.7
II	102.3	105.1	95.0	110.7
III	102.3	105.5	94.2	111.9
Percent Change: (Annual Rate)				
1980 I	-1.6	-0.4	-5.0	4.8
II	-10.3	-4.9	-23.9	24.9
III	-2.4	-0.0	-8.5	9.3
IV	13.0	10.4	20.2	-8.2
1981 I	3.5	3.3	3.8	-0.4
II	3.1	4.1	0.5	3.6
III	0.1	1.3	-3.2	4.6

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

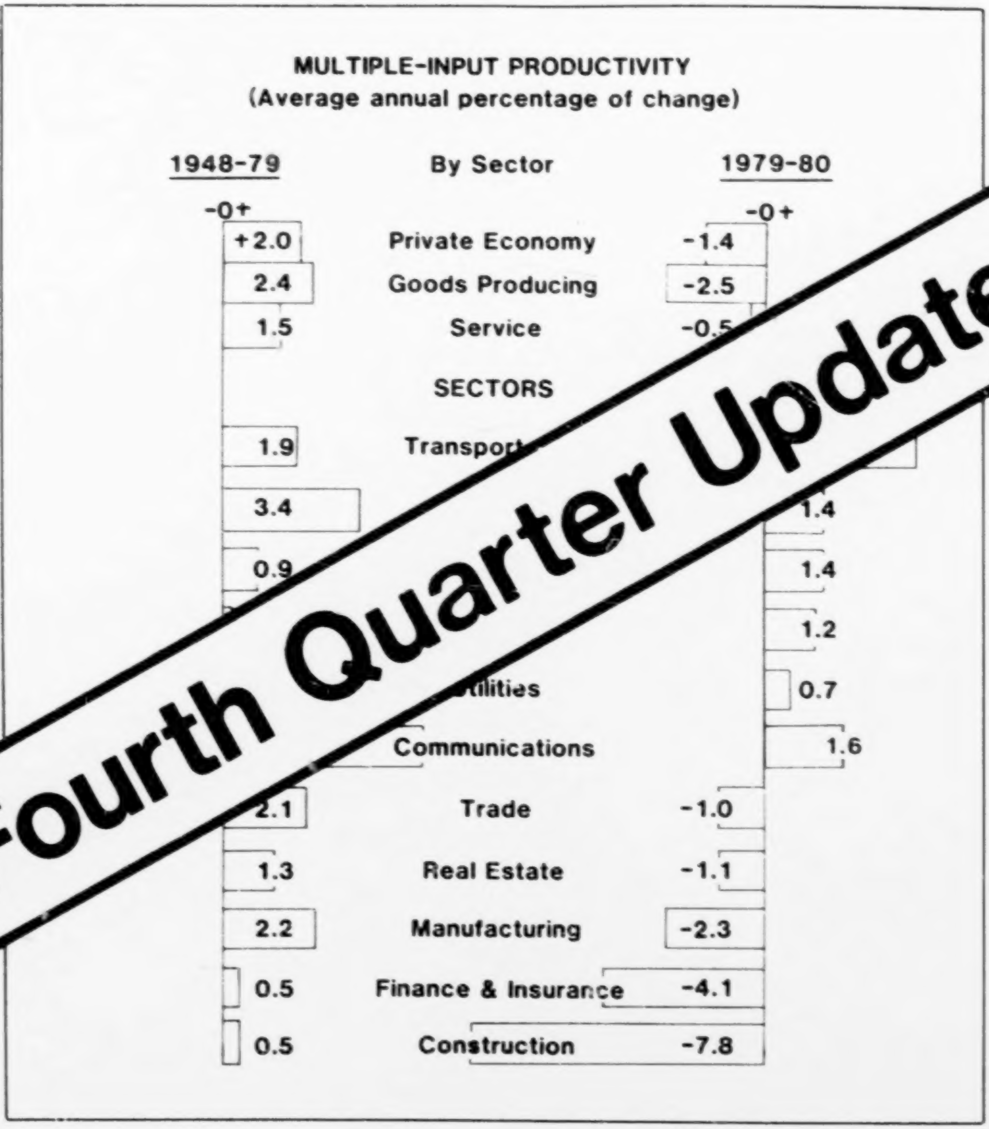
7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.5	97.6	100.5	97.1
	II	97.3	97.2	97.9	99.3
	III	98.5	98.5	98.9	99.6
	IV	97.5	97.3	98.3	99.0
1981	I	98.5	98.4	99.1	99.3
	II	98.0	98.4	97.5	100.9
	III	96.9	97.7	95.8	102.1
Percent Change: (Annual Rate)					
1980	I	0.3	0.7	-0.4	1.1
	II	-4.6	-1.5	-10.0	9.5
	III	5.1	5.5	4.2	1.2
	IV	-4.1	-4.9	-2.5	-2.4
1981	I	4.2	4.7	3.4	1.2
	II	-2.2	0.0	-6.2	6.6
	III	-4.4	-2.9	-7.0	4.5

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, November 25, 1981 "Productivity and Costs" release.

MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No.4
June 1982



Fourth Quarter Update

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GOODS-PRODUCERS OUTSTRIP SERVICE SECTOR IN LEVELS OF OUTPUT PER HOUR

Total factor productivity, which had registered a drop of over one percent in 1980, rose 0.4 percent in 1981, despite losses in both the third and fourth quarters as the economy slumped into a recession. However, the 1981 level of output per hour of total factor input remained more than one percent below the level of base year 1977.

The picture for labor productivity (output per hour, all persons) appeared rosier. The very slight declines in 1978-80 were more than offset by a 1.1 percent rise in 1981 -- again, despite a slight drop in the third quarter and a sharp recession-induced decline in the fourth. While the 1981 increase is modest indeed by historical standards, it is significant in that the persistent post-1977 decline was finally terminated. (Whether the modest gain can be continued in 1982 appears to depend primarily upon a hoped-for recovery from the recession with the normally attendent increases in utilization of plant capacity and of labor productivity.)

The 1980-81 productivity dynamics for the average for all goods-producing industries and all service-producing industries presented a more significant pattern. The average level of real output per hour paid for peaked for the service aggregate in 1978 at \$7.62 per hour as compared to the significantly lower average of \$7.44 for all goods-producing industry. The averages for both major sub-divisions of the private business economy dropped during 1979 and 1980, with the services industries continuing to hold a slight 1980 advantage in average level of \$7.57 versus \$7.42. (Table 1).

In 1981, however, the goods-producing segment of the economy -- driven primarily by strong gains in manufacturing and even larger increases in the farming sector -- registered a healthy 3.1 percent labor productivity rise. In contrast, the services-producing group of industries experienced substantial productivity declines in the second, third and fourth quarters, for an average drop of 0.3 percent for the year.

The full significance of the contrasting pattern of a 1981 productivity gain for goods-producers coupled with an average loss for the services segment lies in the fact that the shift resulted in the termination of the higher average level of output per hour for the services segment which had persisted throughout the post-war period. in 1981, the goods-producing segment averaged a labor productivity level of $7.65 per hour paid for -- more than one percent above the services' level of $7.55.

* * * * * * * *

TABLE 1

Labor Productivity in the Private Business Economy (selected years)

(1972 $ output per hour paid)

	1948	1973	1978	1980	1981
Private Business Economy	$3.48	$7.17	$7.54	$7.51	$7.59
Goods-Producing	2.93	7.08	7.44	7.42	7.65[1]
Farming	1.13	4.03	4.55	5.17	5.51
Manufacturing	3.65	7.52	8.15	8.22	8.44
Construction	4.49	6.46	5.76	5.14	
Mining	5.32	13.15	10.38	9.38	
Service-Producing	4.12	7.24	7.62	7.57	7.55[1]
Transportation	4.11	7.47	8.11	7.89	
Communications	3.11	13.21	17.78	19.58	
Public Utilities	4.50	18.88	19.96	19.63	
Trade	2.97	6.06	6.34	6.24	
Finance & Insurance	5.61	7.74	7.73	7.63	
Professional & Other Services	4.63	5.54	5.61	5.62	
Nonfarm, Nonmanufacturing Industry		7.26	7.48	7.36	7.37
Nonfinancial Corporate Business		7.89	8.38	8.43	8.64

[1] Reliable productivity data are not yet available for all of the individual sectors of the economy. Also, productivity level data for the real estate sector are not shown due to a significant question as to the reliability of the labor input (aggregate hours paid for, excluding non-office sales personnel).

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This analysis should be treated as an addition to Multiple Input Productivity Indexes, Vol. 2 Numbers 1 and 2. The tables are numbered accordingly.

Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Multiple-Input Productivity					
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Sector	2.3	3.2	2.3	0.4	0.1
Service Producing Sector	1.3	1.8	1.4	0.5	-0.7
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing Industry	2.0	2.6	2.3	0.8	-0.2
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.1	-0.6
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.4%	3.2%	2.4%	0.8%	0.5%
Goods Producing Sector	2.9	4.0	2.7	0.9	1.3
Service Producing Sector	1.9	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing Industry	2.6	3.0	2.8	1.5	1.3
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.2	0.1
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Sector	0.4	1.1	0.8	-1.1	-2.8
Service Producing Sector	0.1	0.5	-0.1	0.1	-1.8
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing Industry	0.0	0.9	0.3	-1.5	-4.0
Nonfarm Nonmanufacturing Industry	0.0	0.4	-0.4	-0.3	-1.9
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table II

Outputs, Inputs and Capital-Labor Ratio By Major Segment of the Economy (Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.3%	3.6%	3.9%	2.7%	0.6%
Goods Producing Sector	2.9	3.6	3.3	1.7	-0.6
Service Producing Sector	3.6	3.6	4.3	3.4	1.4
Farming	1.3	0.9	0.9	2.0	3.7
Manufacturing Industry	3.3	4.0	4.1	2.1	-1.1
Nonfarm Nonmanufacturing Industry	3.4	3.6	3.9	3.0	1.2
Nonfinancial Corporate Business	4.2	4.6	5.0	3.0	1.3
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	0.1%
Goods Producing Sector	0.0	-0.4	0.6	0.8	-1.8
Service Producing	1.7	1.2	2.1	2.7	1.4
Farming	-3.5	-4.2	-3.9	-1.6	-1.3
Manufacturing Industry	0.8	1.0	1.2	0.6	-2.3
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.2
Nonfinancial Corporate Business	1.8	1.5	2.8	2.0	-0.2

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio By Major Segment of the Economy (Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	3.0%
Goods Producing Sector	2.5	2.4	2.5	2.9	2.3
Service Producing Sector	3.5	3.1	4.5	3.3	3.3
Farming	1.2	1.2	0.9	1.4	1.3
Manufacturing Industry	3.3	3.1	3.7	3.6	3.0
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.2
Nonfinancial Corporate Business	3.7	3.7	5.1	2.7	1.6
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Sector	2.5	2.8	1.9	2.0	4.2
Service Producing Sector	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing Industry	2.6	2.1	2.5	3.1	5.4
Nonfarm Nonmanufacturing Industry	1.8	2.0	2.2	0.5	2.0
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.8	99.5	100.5	99.1
	II	98.3	99.1	96.8	102.4
	III	98.4	99.4	96.4	103.1
	IV	98.4	99.1	97.2	102.0
1981	I	99.6	100.3	98.4	102.0
	II	99.9	101.2	97.6	103.6
	III	99.5	100.9	96.8	104.2
	IV	97.6	99.2	94.5	105.0
1980		98.5	99.3	96.7	102.7
1981		98.9	100.4	95.9	104.8

Percent Change: (Annual Rate)

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	0.7	1.6	-1.2	2.8
	II	-5.9	-1.8	-14.0	14.2
	III	0.4	1.3	-1.5	2.8
	IV	0.3	-1.1	3.2	-4.1
1981	I	4.8	4.7	5.0	-0.2
	II	1.4	3.5	-3.0	6.7
	III	-1.8	-1.1	-3.3	2.2
	IV	-7.5	-6.5	-9.3	3.1
1980		-1.2	-0.1	-3.7	3.8
1981		0.4	1.1	-0.8	2.0

2. Goods Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	101.3	100.5	100.8
	II	97.3	98.8	93.8	105.3
	III	95.1	96.9	90.8	106.7
	IV	97.8	99.0	94.9	104.3
1981	I	98.6	99.9	95.4	104.7
	II	102.1	103.9	97.7	106.4
	III	103.0	104.9	98.3	106.7
	IV	99.5	101.9	93.8	108.6
1980		98.2	99.5	94.8	105.0
1981		100.6	102.6	95.4	107.6

Percent Change: (Annual Rate)

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	3.5	5.9	-2.8	9.0
	II	-13.8	-9.6	-24.0	19.0
	III	-8.9	-7.5	-12.4	5.5
	IV	11.8	9.0	19.2	-8.6
1981	I	3.3	3.7	2.3	1.4
	II	15.1	17.2	9.9	6.7
	III	3.5	3.8	2.5	1.3
	IV	-12.8	-11.1	-17.0	7.1
1980		-2.2	-0.6	-6.1	6.0
1981		2.4	3.1	0.6	2.5

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.1	98.5	100.7	97.7
	II	99.1	99.4	99.1	100.3
	III	100.8	101.2	100.7	100.5
	IV	99.1	99.4	99.2	100.2
1981	I	100.5	100.7	100.8	99.8
	II	98.7	99.4	98.0	101.4
	III	97.3	98.3	96.3	102.1
	IV	96.5	97.5	95.4	102.2
1980		98.8	99.2	98.2	101.0
1981		97.9	98.9	96.4	102.5
Percent Change: (Annual Rate)					
1980	I	-0.8	-1.3	-0.1	-1.3
	II	-0.1	3.8	-6.3	10.8
	III	7.1	7.5	6.6	0.8
	IV	-6.6	-7.0	-5.9	-1.2
1981	I	5.9	5.3	6.9	-1.5
	II	-7.1	-4.8	-10.6	6.6
	III	-5.5	-4.5	-7.1	2.8
	IV	-3.3	-3.2	-3.5	0.4
1980		-0.5	0.3	-1.9	2.2
1981		-0.9	-0.3	-1.8	1.5

4. Nonfinancial Corporate Business

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	100.2	103.5	96.8
	II	100.0	100.1	99.9	100.2
	III	101.4	101.8	100.9	100.8
	IV	102.1	101.8	103.2	98.6
1981	I	103.8	103.3	105.7	97.8
	II	104.0	103.9	104.7	99.2
	III	103.7	103.8	103.7	100.1
	IV	n.a.	n.a.	n.a.	n.a.
1980		101.3	101.0	102.1	98.9
1981		103.3	103.5	102.7	100.7
Percent Change: (Annual Rate)					
1980	I	1.4	1.5	1.1	0.3
	II	-3.9	-0.5	-13.2	14.6
	III	6.0	6.7	4.0	2.7
	IV	2.4	0.0	9.5	-8.7
1981	I	7.2	6.3	9.8	-3.2
	II	0.6	2.2	-3.5	5.9
	III	-1.4	-0.5	-3.8	3.5
	IV	n.a.	n.a.	n.a.	n.a.
1980		0.2	0.7	-1.1	1.7
1981		2.0	2.5	0.6	1.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

5. Farming

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	111.8	115.9	108.4	106.9
	II	116.7	124.7	110.3	113.0
	III	100.4	105.9	95.9	110.4
	IV	97.8	100.4	95.7	104.9
1981	I	99.7	103.1	96.8	106.5
	II	112.0	120.5	105.1	114.1
	III	119.8	127.2	113.7	111.9
	IV	123.7	128.9	119.4	108.0
1980		107.5	111.3	103.3	107.8
1981		113.6	118.6	108.4	109.4

Percent Change: (Annual Rate)

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	25.7	40.5	13.3	24.0
	II	18.9	33.8	7.1	24.9
	III	-45.3	-48.0	-42.9	-9.0
	IV	-9.8	-19.1	-0.5	-18.7
1981	I	7.8	11.4	4.7	6.4
	II	59.1	86.1	38.7	34.2
	III	31.1	24.5	37.0	-9.1
	IV	13.8	5.4	21.7	-13.4
1980		1.7	3.6	-0.1	3.8
1981		5.7	6.6	4.9	1.5

6. Manufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	102.0	98.3	103.8
	II	98.3	100.7	91.8	109.8
	III	97.7	100.7	89.8	112.2
	IV	100.7	103.2	93.9	109.9
1981	I	101.6	104.2	94.8	109.9
	II	102.4	105.2	94.9	110.8
	III	102.3	105.5	94.1	112.1
	IV	98.6	102.5	88.8	115.5
1980		99.3	101.7	92.7	109.8
1981		101.0	104.5	92.1	113.4

Percent Change: (Annual Rate)

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	-1.5	-0.3	-5.0	4.9
	II	-10.3	-4.9	-23.9	24.9
	III	-2.4	0.0	-8.5	9.3
	IV	12.9	10.4	20.2	-8.0
1981	I	3.7	3.7	3.8	-0.1
	II	3.1	4.0	0.5	3.5
	III	-0.1	1.2	-3.5	4.8
	IV	-13.8	-11.0	-20.8	12.4
1980		-2.1	-0.2	-7.2	7.6
1981		1.7	2.8	-0.6	3.3

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.5	97.6	100.5	97.1
	II	97.3	97.2	97.9	99.3
	III	98.5	98.5	98.9	99.6
	IV	97.5	97.3	98.1	99.2
1981	I	98.6	98.4	99.3	99.1
	II	98.1	98.4	97.8	100.7
	III	97.2	97.7	96.5	101.2
	IV	96.0	96.6	95.3	101.4
1980		97.6	97.7	97.5	100.2
1981		97.2	97.9	96.1	101.8
Percent Change:		(Annual Rate)			
1980	I	0.3	0.7	-0.4	1.1
	II	-4.6	-1.5	-10.0	9.5
	III	5.1	5.5	4.2	1.2
	IV	-4.3	-4.9	-3.3	-1.6
1981	I	4.8	4.7	5.2	-0.5
	II	-2.1	0.1	-6.2	6.7
	III	-3.7	-3.0	-5.0	2.1
	IV	-4.6	-4.3	-5.0	0.8
1980		-0.8	0.0	-2.3	2.3
1981		-0.4	0.2	-1.4	1.6

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, March 1, 1982 "Productivity and Costs" release; capital input is revised to reflect 1981 estimates by the Bureau of Economic Analysis, U.S. Department of Commerce, and 1975-1981 Farm land revisions published by the U.S. Department of Agriculture.

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MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 3 No. 1 September 1982

LABOR PRODUCTIVITY

(output per hour)

	Share (%) of hours		Actual levels (1972 $)			Average annual % of change		
	1948	1981	1948	1978	1981	'48-65	'65-73	'73-81
Private business economy	100	100	3.48	7.54	7.59	3.2	2.4	0.7
Segments:								
Farming	18.3	4.2	1.13	4.55	5.51	5.3	5.0	4.0
Manufacturing	29.0	27.7	3.65	8.15	8.40	3.0	2.8	1.4
Non-farm/non-manufacturing	52.7	68.1	4.20	7.48	7.39	2.4	1.8	0.2
Sectors:								
Goods-producing	54.3	40.3	2.93	7.44	7.58	4.0	2.7	0.9
Services-producing	45.7	59.7	4.12	7.62	7.60	2.3	2.2	0.6

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A NOTE TO USERS OF MULTIPLE-INPUT PRODUCTIVITY INDEXES

This brochure constitutes the initial issue of the American Productivity Center's 1982-83 Multiple-Input Productivity Index. The next three quarterly issues will update data for only selected portions of the economy -- the private business economy and the major segments. Thus, the issue should be retained as a basic reference for the entire 1982-83 subscription year.

Spot data on levels of output per hour for selected years (including calendar 1981) for the sectors and the manufacturing industry groups are included in this issue.

Another feature of the 1982 series is the presentation of updated indexes of trend for certain three- or four-digit SIC industries -- a service made possible through financial support of several individual corporations and industry organizations. Manufacturing industries in the series include: steel, electronic components, plastics products, and four food product groups.

For the latter two industry categories (plastics and food products) total[1] as well as total factor productivity data are shown.

Users of the MIPI series are advised of the following revisions from past issues:

- Capital/labor shares (weights for the total factor input series) have been revised to incorporate the 1980 census benchmark revision.
- New 1981 output data provided by Bureau of Economic Affairs are incorporated into the sector quarterly figures.
- Hours are revised for 1980 to reflect BLL annual benchmark revisions.
- Manufacturing quarterly output data now reflects new 1980 and 1982 BLS seasonal factors.
- Minor revisions in new investment and capital data for manufacturing and non-financial corporations have been made to reflect BEA revisions, 1979-81.
- There is also a minor revision for gross fixed capital for nonrail transportation.

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[1] The total factor series matches value-added output against the weighted input of labor and capital; "intermediate items" -- purchased materials, energy, components and services -- are excluded from both numerator and denominator. For the "total" productivity series, these purchased inputs are included on both the output and input side, and separate materials and energy productivity ratios may be computed.

Multiple-Input Productivity Indexes Contractor:
Dr. Elliot H. Grossman

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UPDATE: LEVELS OF OUTPUT PER HOUR

Private Business Economy and Major Sectors -- 1948-1981

The June 1981 MIPI article "New Data on Levels of Productivity and Capital Stock per Hour" presented data on actual levels of constant-dollar output per hour for the business economy and for the major sectors -- something which had been missing in the recent productivity literature. The article emphasized the fact that average output per hour for the goods-producing industries was slightly lower than that of the services-generating industries -- a contrast to the "conventional" position that shifts of employment and/or output share from goods to services tended to lower average productivity for the economy as a whole.

The data presented in that issue showed clearly the large differentials in output per hour between the various major sectors, ranging in 1980 from $4.94 for construction up to $19.87 for public utilities. Hence, it is clear to the observer that inter-sectoral shifts will either raise or lower average productivity for the economy dependent upon the particular sectors involved.

Figure 1 output per hour data for all the key years in the span covered by the Center's multiple-input productivity index: 1948, 1973, 1978 (the peak year for productivity in most sectors), 1980 (revised) and 1981. As the reader will note, in 1981 the weighted average for the services-producing industry was barely higher than for the goods industries -- and hence fractionally above the average for the total private business economy.[1] It is worth noting that from 1980 to 1981, average output per hour increased slightly (the first rise since 1977-78), and that the majority of the sectors experienced a positive productivity trend: five services industries were plus, only one minus; the goods industries divided equally, two increases and two declines.

Despite their recently stagnant record, the goods industries have experienced more rapid growth over the longer term -- and again in 1978-81. During the early post-OPEC years 1973-78, both segments of the business economy showed a barely-positive growth rate (one percent per year).

The shift within the U.S. business economy of employment and total hours of input from goods production to the services industries is clearly evident in the 1948-81 comparison in Figure 2.

Figure 2.

	Share of Hours 1948	Share of Hours 1981
Private Business, total:	100.0	100.0
Goods producing industry:	54.3	40.3
Services producing industry:	45.7	59.7
Private business, total:	100.0	100.0
Farming:	18.3	4.2
Manufacturing:	29.0	27.7
Non-farm, non-manufacturing:	52.7	68.1

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[1] Based upon data available at the time, the Center's Benchmark 8 announced that goods producers had already passed services. It now appears that that analysis was premature.

Figure 1

Labor Productivity Levels
Private Business Economy

(1972 $ output per hour paid)

	1948	1973	1978	1980	1981	Change 80-81
Private Business Economy	$3.48	$7.17	$7.54	$7.51	$7.59	(+)
Goods Producing Industry	2.93	7.08	7.44	7.42	7.58	(+)
Farming	1.13	4.03	4.55	5.17	5.51	(+)
Manufacturing	3.65	7.52	8.15	8.22	8.40	(+)
Mining	5.32	13.15	10.38	9.38	9.09	(-)
Construction	4.49	6.46	5.76	5.14	5.12	(-)
Services Producing Industry	4.12	7.24	7.62	7.57	7.60	(+)
Transportation	4.11	7.47	8.11	7.89	8.10	(+)
Communications	3.11	13.21	17.78	19.58	20.61	(+)
Public Utilities	4.50	18.88	19.96	19.63	18.88	(-)
Trade	2.97	6.06	6.34	6.24	6.35	(+)
Finance & Insurance	5.61	7.74	7.73	7.63	7.64	(+)
Professional & other services	4.63	5.54	5.61	5.62	5.63	(+)
Nonfarm Nonmanufacturing Industry	4.20	7.26	7.48	7.36	7.39	(-)
Nonfinancial Corporate Business	3.98	7.89	8.38	8.43	8.64	(+)

Average Annual Growth Rate

	1948-1973	1973-1978	1978-1981
Private Business Economy	2.9%	1.0%	0.2%
Goods Producing	3.6	1.0	0.6
Service Producing	2.3	1.0	-0.1

ANALYSIS: RECENT PRODUCTIVITY DYNAMICS

It is not startling news that the double dip recession of 1980 and 1981 was largely triggered by the 1979-80 second OPEC oil shock, which saw a redoubling of already-escalated energy prices. The recession has deepened during the first half of 1982, as output continued to drop -- largely as the result of record-setting interest rates. Contrary to past experience and current expectations, the very sharp drop in inflation during the latter months of 1981 did not lead to lowered interest rates and an attendant resurgence of consumer demand and of production of such durable goods as housing, automobiles and major electrical appliances.

Rather, unemployment has continued to rise as more and more business firms have either cut back on output or closed down completely, unable to operate in the absence of reasonably-priced short-term financing and firm market for their products.

In analyzing the total factor and labor productivity trends for the private business economy and its major segments and sectors in 1979 through first quarter 1982, there appears to be some evidence that the economy could be expected to rebound rapidly when the economy begins its recovery. Despite the drop in manfuacturing capacity utilization in the latter months of 1981 and in early 1982, to rates comparable to those of the lowest point of the 1974-75 recession, labor productivity for manufacturing was actually higher in 1981 than in either 1979 or 1980. Total factor productivity in 1981 was only fractionally below the 1979 level, despite a severe decline in capital productivity. (The latter, of course, was unavoidable in view of the low utilization of capacity, which fell below 75 percent in November-December and in the first quarter of 1982. Virtually all capital input costs are by nature fixed, rather than variable with changes in output and plant utilization.)

For the business economy as a whole, just as in manufacturing, labor productivity showed a slight (0.5 percent) rise from 1979-81, while total factor productivity dropped an almost-equal amount (-0.4 percent, annual rates, '79-81). The performance of the goods-producing industries, as a group, was stronger than for the services-generating industries, in terms of both labor and total factor productivity. Agriculture showed the strongest productivity increase (5.1 percent/year, labor productivity, and 3.7 percent/year, total factor productivity).

The pattern of productivity dynamics for the individual manufacturing industries reflected extreme divergence. As would be expected, those industries faced with the sharpest drops in demand and output, and those which expanded their capital goods input despite declining demand, recorded the most dismal productivity experience. In terms of total factor productivity (which reflects capital costs as well as labor input), the transportation equipment, and petroleum industries were the hardest hit in the manufacturing sector. Primary metals, lumber, and paper also recorded significant total factor productivity declines, in all instances primarily as the result of sharp capital productivity losses due to drops in demand and hence in output volume. For these manufacturing industries, labor productivity actually *increased* modestly -- another indication of the importance of *looking at* both sides of the productivity coin.

In the non-manufacturing sector, construction and public utilities recorded significant productivity declines between 1979 and 1981.

The APC quarterly series showed a sharp first quarter 1982 drop in manufacturing productivity (8.1 percent total factor, 4.9 percent labor, at annual rates), as plant capacity utilization level fell even below the low rates of fourth quarter 1981, to a level just over 70 percent of capacity. Farming showed an even sharper output and productivity drop -- not surprising in view of the severe winter, which prevailed over much of the nation into normally-spring months.

More surprising was the significant first quarter 1982 *rise* in productivity for the services producing industries (at a *7.5* percent total factor and 7.0 percent labor productivity growth, annual rate). This increase offset in part the dismal experience of the major goods-producing sectors. Hence, for the business economy as a whole, the annual-rate first quarter declines were only 2.6 percent total factor and 0.9 percent labor productivity.

Table I
Multiple Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

1. Total Factor Productivity

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Industry	2.4	3.5	2.3	0.4	-0.2
Service Producing Industry	1.3	1.8	1.3	0.5	-0.4
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing Industry	2.0	2.6	2.3	0.8	-0.4
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.1	-0.5
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1

2. Labor Productivity
(Output per hour worked)

	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	2.4%	3.2%	2.4%	0.8%	0.5%
Goods Producing Industry	2.9	4.0	2.7	0.9	0.8
Service Producing Industry	1.9	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing Industry	2.6	3.0	2.8	1.5	1.0
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.2	0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6

3. Capital Productivity
(Output per unit of capital input)

	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Industry	0.4	1.1	0.8	-1.1	-3.3
Service Producing Industry	0.2	0.5	-0.1	0.1	-1.5
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing Industry	0.0	0.9	0.3	-1.5	-4.2
Nonfarm Nonmanufacturing Industry	0.0	0.4	-0.4	-0.3	-1.8
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.3%	3.6%	3.9%	2.7%	0.6%
Goods Producing Industry	2.9	3.6	3.3	1.7	-1.1
Service Producing Industry	3.6	3.6	4.3	3.4	1.7
Farming	1.3	0.9	0.9	2.0	3.7
Manufacturing Industry	3.3	4.0	4.1	2.1	-1.3
Nonfarm Nonmanufacturing Industry	3.4	3.6	3.9	3.0	1.4
Nonfinancial Corporate Business	4.2	4.6	5.0	3.0	1.3
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	0.1%
Goods Producing Industry	0.0	-0.4	0.6	0.8	-1.8
Service Producing Industry	1.7	1.2	2.1	2.7	1.4
Farming	-3.5	-4.2	-3.9	-1.6	-1.3
Manufacturing Industry	0.8	1.0	1.2	0.6	-2.3
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.2
Nonfinancial Corporate Business	1.8	1.5	2.8	2.0	-0.2

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
	3. Capital Input				
Private Business Economy	3.1%	2.8%	3.7%	3.1%	3.0%
Goods Producing Industry	2.5	2.4	2.5	2.9	2.3
Service Producing Industry	3.5	3.1	4.5	3.3	3.3
Farming	1.2	1.2	0.9	1.4	1.3
Manufacturing Industry	3.3	3.1	3.7	3.6	3.0
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.2
Nonfinancial Corporate Business	3.7	3.7	5.1	2.7	1.6
	4. Capital - Labor Ratio				
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Industry	2.5	2.8	1.9	2.0	4.2
Service Producing Industry	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing Industry	2.6	2.1	2.5	3.1	5.4
Nonfarm Nonmanufacturing Industry	1.8	2.0	2.2	0.5	2.0
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Table III a.

Total Factor Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Sector	2.4	3.5	2.3	0.4	-0.2
Service Producing Sector	1.3	1.8	1.3	0.5	-0.4
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing	2.0	2.6	2.3	0.8	-0.4
Food	2.8	2.9	4.1	0.0	4.5
Tobacco	1.7	2.3	2.1	0.3	-0.2
Textiles	3.3	3.9	3.0	3.7	-0.9
Apparel	2.5	2.0	3.0	3.8	1.2
Lumber	2.5	4.5	1.3	0.4	-2.4
Furniture	2.0	2.1	0.8	3.3	1.4
Paper	1.9	2.2	4.0	0.0	-2.8
Printing & Publishing	1.4	2.4	1.0	-1.1	1.5
Chemicals	3.2	3.9	4.2	1.2	-1.2
Petroleum	1.3	3.4	2.0	-2.4	-8.0
Rubber	1.6	2.3	2.0	-0.4	-0.2
Leather	1.1	1.0	1.7	1.2	-0.7
Stone, Clay & Glass	1.3	2.0	0.9	0.1	0.6
Primary Metals	0.1	0.9	0.9	-2.0	-2.7
Fabricated Metals	1.3	1.7	1.3	0.7	-0.2
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	1.3
Electrical Machinery	3.6	4.3	2.8	3.3	1.0
Transportation Equipment	2.0	3.4	2.3	0.3	-4.9
Instruments	2.6	3.6	2.5	0.9	0.6
Miscellaneous Manufac.	2.5	2.3	3.6	1.9	2.7
Nonfarm Nonmanufacturing	1.2	1.9	1.1	0.1	-0.5
Mining	0.8	2.3	1.7	-4.0	-1.3
Construction	0.3	2.4	-1.0	-3.0	-2.5
Transportation	1.8	2.0	2.4	1.1	-0.6
Railroad	2.7	4.2	1.2	1.1	1.7
Nonrail	1.0	0.5	2.7	0.9	-1.3
Communications	4.6	5.4	3.2	4.2	4.0
Public Utilities	2.9	5.5	1.5	-0.9	-2.2
Trade	1.9	2.4	2.6	0.6	-0.7
Finance & Insurance	0.3	1.0	0.3	-1.0	-1.6
Real Estate	1.1	1.9	0.0	1.3	-1.0
Services	0.2	0.3	-0.1	0.1	1.0
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	2.4	3.2%	2.4%	0.8%	0.5%
Goods Producing Industry	2.9	4.0	2.7	0.9	0.8
Service Producing Industry	1.9	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing	2.6	3.0	2.8	1.5	1.0
Food	3.2	3.2	4.6	0.6	5.0
Tobacco	3.5	4.0	4.0	2.6	-0.1
Textiles	4.2	5.0	3.3	4.5	0.0
Apparel	2.7	2.0	3.3	4.3	1.5
Lumber	2.9	4.3	1.8	1.5	0.0
Furniture	2.2	2.1	1.1	3.9	1.9
Paper	2.5	2.5	4.5	1.3	-1.0
Printing & Publishing	1.5	2.4	1.5	-0.8	1.7
Chemicals	4.1	4.8	4.8	2.5	0.2
Petroleum	3.1	5.5	3.3	-1.2	-4.9
Rubber	1.8	2.5	2.2	0.0	0.2
Leather	1.4	1.2	2.2	1.6	-0.2
Stone, Clay & Glass	1.9	2.6	1.2	0.9	2.6
Primary Metals	0.8	1.5	1.5	-1.4	-0.6
Fabricated Metals	1.8	2.1	1.5	1.3	0.8
Machinery, exc. Elec.	1.8	1.7	2.0	1.3	2.3
Electrical Machinery	3.9	4.5	3.4	3.8	2.0
Transportation Equipment	2.7	3.6	3.1	1.0	-1.8
Instruments	3.0	3.8	3.1	1.2	1.4
Miscellaneous Manufac.	3.1	2.8	4.0	2.2	4.1
Nonfarm Nonmanufacturing	1.7	2.4	1.8	0.2	0.2
Mining	1.6	4.3	2.4	-5.2	-2.5
Construction	0.4	2.6	-0.9	-3.0	-2.4
Transportation	2.1	2.3	2.6	1.2	0.5
Railroad	3.3	4.8	1.7	1.1	2.9
Nonrail	1.4	0.8	3.2	1.3	-0.1
Communications	5.9	6.5	4.8	5.8	5.5
Public Utilities	4.4	6.9	3.8	0.8	-2.3
Trade	2.3	2.8	3.2	0.8	-0.1
Finance & Insurance	0.9	1.3	1.2	-0.1	-0.2
Real Estate	0.3	1.2	0.1	-1.4	-0.9
Services	0.6	0.9	0.4	0.0	0.8
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6

Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Sector	0.4	1.1	0.8	-1.1	-3.3
Service Producing Sector	0.2	0.5	-0.1	0.1	-1.5
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing	0.0	0.9	0.3	-1.5	-4.2
Food	1.5	2.1	2.5	-2.0	2.9
Tobacco	-0.9	-1.4	0.4	-1.2	-0.2
Textiles	-0.5	-1.6	1.5	1.2	-3.5
Apparel	0.5	1.3	-0.9	0.6	-1.2
Lumber	1.2	5.2	-1.4	-3.1	-8.2
Furniture	0.8	2.0	-1.2	0.4	-1.0
Paper	0.4	1.5	2.5	-3.0	-6.4
Printing & Publishing	0.5	2.6	-1.7	-2.2	0.6
Chemicals	1.5	2.2	3.1	-1.0	-3.1
Petroleum	-0.2	1.5	0.9	-3.2	-9.6
Rubber	0.5	1.3	1.0	-2.0	-1.6
Leather	-1.6	-0.7	-3.0	-1.8	-3.9
Stone, Clay & Glass	-0.8	-0.1	-0.1	-2.2	-4.3
Primary Metals	-2.4	-1.7	-1.0	-4.1	-8.5
Fabricated Metals	-1.4	-1.2	-0.3	-2.3	-5.0
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.3	-2.1
Electrical Machinery	1.6	3.5	-0.7	0.8	-2.9
Transportation Equipment	0.0	2.8	-1.0	-1.9	-12.2
Instruments	1.0	1.8	0.4	0.3	-1.3
Miscellaneous Manufac.	0.1	-0.6	2.0	0.3	-2.5
Nonfarm Nonmanufacturing	0.0	0.4	-0.4	-0.3	-1.8
Mining	-1.2	-2.0	0.7	-2.3	0.5
Construction	-2.2	-1.7	-2.9	-2.3	-3.4
Transportation	0.1	-0.1	1.3	0.8	-4.4
Railroad	-0.4	-0.3	-1.1	0.9	-2.2
Nonrail	-1.2	-1.4	0.0	-0.8	-5.6
Communications	0.9	0.3	0.8	2.5	2.4
Public Utilities	0.8	2.8	-0.5	-2.0	-2.2
Trade	-1.2	-1.2	-1.2	0.8	-3.5
Finance & Insurance	-3.1	-1.4	-4.6	-4.9	-6.3
Real Estate	1.2	2.0	0.0	1.5	-1.0
Services	-0.7	-1.3	-1.0	0.5	1.5
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Sector	2.5	2.8	1.9	2.0	4.2
Service Producing Sector	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing	2.6	2.1	2.5	3.1	5.4
Food	1.7	1.1	2.0	2.7	2.0
Tobacco	4.4	5.5	3.7	3.9	0.1
Textiles	4.7	6.7	1.8	3.3	3.7
Apparel	2.2	0.6	4.2	3.7	2.7
Lumber	1.7	-0.9	3.2	4.8	9.0
Furniture	1.4	0.1	2.4	3.4	2.9
Paper	2.1	1.0	2.0	4.4	5.8
Printing & Publishing	1.0	-0.2	3.3	1.4	1.1
Chemicals	2.6	2.5	1.7	3.5	3.5
Petroleum	3.3	4.0	2.4	2.1	5.2
Rubber	1.4	1.1	1.2	2.0	1.9
Leather	3.1	1.9	5.3	3.4	3.8
Stone, Clay & Glass	2.7	2.7	1.3	3.2	7.2
Primary Metals	3.3	3.2	2.5	2.8	8.7
Fabricated Metals	3.2	3.4	1.8	3.7	6.1
Machinery, exc. Elec.	2.7	2.4	3.1	2.6	4.5
Electrical Machinery	2.3	0.9	4.2	3.0	5.0
Transportation Equipment	2.7	0.8	4.2	3.0	11.9
Instruments	2.0	2.0	2.7	0.9	2.7
Miscellaneous Manufac.	3.0	3.5	2.0	1.9	6.7
Nonfarm Nonmanufacturing	1.8	2.0	2.2	0.5	2.0
Mining	2.9	6.3	1.7	-3.0	-3.0
Construction	2.6	4.3	2.0	-0.8	1.0
Transportation	1.9	2.4	1.3	0.4	5.1
Railroad	3.7	5.1	2.9	0.2	5.2
Nonrail	2.7	2.2	3.2	2.1	5.9
Communications	4.9	6.2	3.9	3.2	3.0
Public Utilities	3.6	4.0	4.3	2.8	-0.2
Trade	3.6	4.0	4.4	1.6	3.5
Finance & Insurance	4.2	2.8	6.1	5.1	6.5
Real Estate	-0.9	-0.7	0.1	-2.9	0.1
Services	1.3	2.1	1.5	-0.5	-0.8
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Table III e.
Total Factor Productivity

SPECIAL INDUSTRY ESTIMATES

(Selected Periods, 1958-81)

1. S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

	Average Annual Rates of Change				
	1958-81	1958-65	1965-73	1973-79	1979-81
Output	1.2	6.1	1.1	-1.7	-6.0
Labor Hours	-0.5	2.4	-0.9	-1.3	-6.7
Capital Input*	0.9	1.3	1.7	0.0	-0.9
Total Factor Productivity	1.0	4.2	0.7	-1.1	-2.4
Output per Unit Labor	1.8	3.7	2.0	-0.4	0.8
Output per Unit Capital	0.3	4.7	-0.5	-1.7	-5.1
Capital-Labor Ratio	1.4	-1.0	2.6	1.3	6.2

2. S.I.C. 367 - ELECTRONIC COMPONENTS

	Average Annual Rates of Change				
	1958-81	1958-65	1965-73	1973-79	1979-81
Output	10.2	13.3	10.0	9.5	3.1
Labor Hours	5.3	8.4	3.6	3.3	7.4
Capital Input*	9.4	12.3	9.4	6.7	8.1
Total Factor Productivity	3.4	3.6	4.4	4.4	-4.2
Output per Unit Labor	4.7	4.4	6.2	6.0	-3.9
Output per Unit Capital	0.7	0.9	0.5	2.6	-4.6
Capital-Labor Ratio	3.9	3.5	5.6	3.3	0.7

*Capital not necessarily consistent with 2-digit S.I.C. code industry estimates.

Sources: Dept. of Commerce; Dept. of Labor

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.9	41.4	68.2	54.6	46.0	89.9	51.2
1949	36.5	78.3	42.1	66.6	54.9	46.7	86.7	53.8
1950	39.9	79.2	43.5	67.6	58.9	50.3	91.6	55.0
1951	42.2	81.5	45.0	69.7	60.5	51.7	93.8	55.2
1952	43.6	81.6	46.1	70.1	62.2	53.4	94.5	56.5
1953	45.4	82.4	47.1	71.0	64.0	55.1	96.4	57.2
1954	44.6	79.7	48.1	69.4	64.3	56.0	92.7	60.4
1955	48.2	82.7	49.9	72.0	66.9	58.2	96.6	60.3
1956	49.4	84.0	51.3	73.4	67.3	58.8	96.2	61.1
1957	49.9	82.7	52.8	73.0	68.4	60.3	94.5	63.8
1958	49.1	79.0	53.8	70.8	69.4	62.2	91.3	68.1
1959	51.8	82.1	55.3	73.4	70.7	63.1	93.7	67.4
1960	53.6	82.3	56.8	73.9	72.4	65.1	94.3	69.0
1961	54.5	81.0	58.1	73.5	74.1	67.2	93.7	71.8
1962	57.5	82.3	59.9	75.0	76.6	69.8	96.0	72.8
1963	60.0	82.8	61.7	75.9	79.0	72.4	97.2	74.5
1964	63.6	84.2	63.9	77.5	82.0	75.5	99.5	75.9
1965	67.9	86.8	66.4	80.2	84.7	78.2	102.3	76.4
1966	71.6	88.9	69.3	82.5	86.9	80.6	103.3	78.0
1967	73.2	88.8	72.0	83.3	87.9	82.4	101.8	81.0
1968	76.9	90.3	74.7	85.2	90.3	85.2	103.0	82.7
1969	79.2	92.7	77.7	87.8	90.1	85.4	101.9	83.8
1970	78.5	91.2	80.1	87.6	89.7	86.1	98.0	87.9
1971	80.9	90.7	82.6	88.0	91.9	89.2	97.9	91.1
1972	86.2	93.4	85.4	90.8	95.0	92.4	100.9	91.5
1973	92.0	97.0	89.1	94.4	97.4	94.8	103.3	91.8
1974	90.2	97.4	92.1	95.7	94.3	92.7	97.9	94.6
1975	88.5	93.4	94.1	93.6	94.5	94.8	94.0	100.8
1976	94.1	96.1	96.8	96.3	97.7	97.9	97.2	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.9	103.3	104.4	100.3	99.8	101.4	98.4
1979	107.7	108.4	107.2	108.0	99.7	99.4	100.4	98.9
1980	107.0	107.7	110.5	108.6	98.5	99.4	96.9	102.6
1981	109.0	108.5	113.6	110.2	98.9	100.4	95.9	104.8

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	41.1	104.5	49.2	90.4	45.5	39.3	83.6	47.1
1949	39.3	98.6	49.7	86.3	45.5	39.8	79.0	50.4
1950	44.0	100.6	51.5	88.2	49.9	43.8	85.5	51.2
1951	48.1	104.2	53.9	91.5	52.5	46.1	89.1	51.7
1952	49.5	103.7	55.6	91.6	54.1	47.8	89.1	53.6
1953	52.4	104.3	56.8	92.3	56.8	50.3	92.3	54.5
1954	50.1	97.6	57.7	87.7	57.1	51.3	86.8	59.1
1955	54.7	102.0	59.9	91.5	59.8	53.6	91.4	58.7
1956	55.7	102.5	61.7	92.4	60.2	54.3	90.2	60.2
1957	55.7	99.2	63.3	90.4	61.6	56.2	88.0	63.8
1958	52.7	91.7	64.0	85.1	62.0	57.5	82.4	69.8
1959	57.3	96.1	65.5	88.8	64.6	59.7	87.5	68.2
1960	58.0	94.8	66.6	88.1	65.8	61.1	87.0	70.3
1961	58.1	91.9	67.5	86.1	67.5	63.2	86.0	73.5
1962	61.9	93.8	68.9	87.9	70.4	65.9	89.8	73.4
1963	66.0	93.9	70.2	88.3	74.8	70.3	94.1	74.7
1964	69.8	94.6	71.9	89.3	78.2	73.7	97.0	76.0
1965	75.1	98.2	74.0	92.5	81.2	76.5	101.5	75.3
1966	79.1	101.3	76.8	95.5	82.8	78.1	102.9	75.8
1967	79.1	100.0	79.5	95.2	83.1	79.1	99.5	79.5
1968	83.0	100.8	81.5	96.3	86.2	82.3	101.8	80.9
1969	85.0	102.4	83.6	98.1	86.7	83.0	101.7	81.6
1970	81.4	97.2	85.1	94.4	86.2	83.7	95.7	87.5
1971	83.9	94.7	86.1	92.7	90.6	88.7	97.5	91.0
1972	90.0	98.4	87.6	95.9	93.9	91.5	102.7	89.1
1973	97.5	102.8	90.2	99.8	97.7	94.9	108.2	87.7
1974	93.0	101.5	93.1	99.6	93.4	91.6	99.9	91.7
1975	87.3	92.7	94.9	93.2	93.6	94.1	91.9	102.4
1976	94.3	95.9	97.2	96.2	98.0	98.2	97.0	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	105.2	102.4	104.5	100.5	99.8	102.6	97.3
1979	108.0	107.9	106.8	107.6	100.4	100.1	101.0	99.1
1980	103.6	104.2	109.3	105.3	98.4	99.5	94.8	105.0
1981	105.7	103.9	111.8	105.7	100.0	101.7	94.6	107.6

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.5	63.9	37.4	54.1	63.7	54.0	92.2	58.5
1949	34.6	63.5	38.2	54.1	63.9	54.5	90.6	60.1
1950	36.9	63.7	39.4	54.6	67.6	58.0	93.7	61.9
1951	38.0	65.0	40.3	55.8	68.1	58.4	94.2	62.0
1952	39.3	65.5	41.2	56.4	69.8	60.0	95.6	62.8
1953	40.5	66.6	42.1	57.4	70.5	60.8	96.1	63.3
1954	40.7	66.7	43.2	57.8	70.5	61.1	94.4	64.7
1955	43.5	68.7	44.6	59.6	73.0	63.3	97.5	65.0
1956	45.0	70.5	45.9	61.2	73.4	63.8	97.9	65.2
1957	45.8	70.8	47.3	61.9	74.0	64.6	96.7	66.9
1958	46.5	69.8	48.5	61.6	75.6	66.7	96.0	69.5
1959	48.0	72.0	50.0	63.5	75.5	66.7	95.9	69.5
1960	50.4	73.2	51.6	64.9	77.7	68.9	97.6	70.6
1961	51.9	73.1	53.2	65.4	79.3	71.0	97.5	72.8
1962	54.4	74.0	55.3	66.8	81.4	73.5	98.4	74.7
1963	55.7	74.8	57.3	68.0	81.9	74.5	97.1	76.7
1964	59.2	76.6	59.7	70.1	84.5	77.3	99.1	77.9
1965	62.8	78.6	62.5	72.3	86.8	79.9	100.5	79.5
1966	66.4	79.8	65.4	74.3	89.4	83.1	101.4	82.0
1967	69.1	80.7	68.1	75.8	91.1	85.6	101.5	84.3
1968	72.7	82.7	71.2	78.3	92.9	87.8	102.1	86.0
1969	75.0	85.7	74.6	81.4	92.2	87.5	100.5	87.1
1970	76.5	86.8	77.6	83.2	91.9	88.1	98.6	89.4
1971	78.7	87.7	80.8	85.0	92.5	89.7	97.4	92.1
1972	83.5	89.7	84.3	87.6	95.3	93.1	99.1	94.0
1973	88.0	92.8	88.5	91.1	96.6	94.8	99.4	95.4
1974	88.3	94.4	91.6	93.3	94.6	93.5	96.3	97.1
1975	89.4	93.8	93.7	93.8	95.3	95.2	95.3	99.9
1976	94.0	96.2	96.6	96.4	97.5	97.7	97.3	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.8	104.4	100.1	99.8	100.7	99.1
1979	107.5	108.7	107.4	108.2	99.3	98.9	100.1	98.8
1980	109.4	110.2	111.0	110.6	98.9	99.2	98.5	100.7
1981	111.3	111.8	114.6	112.9	98.6	99.5	97.1	102.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.8	60.2	32.6	52.3	55.0	47.8	88.2	54.2
1949	27.5	56.6	33.3	50.0	55.1	48.6	82.7	58.8
1950	30.9	59.3	34.6	52.2	59.2	52.2	89.5	58.3
1951	33.8	63.0	36.3	55.4	61.0	53.6	93.2	57.5
1952	34.4	63.9	37.5	56.4	61.1	53.9	91.9	58.7
1953	36.5	65.7	38.7	58.0	63.0	55.6	94.4	58.9
1954	35.4	62.1	39.6	55.8	63.5	57.1	89.5	63.8
1955	39.5	65.1	41.2	58.4	67.6	60.6	95.8	63.3
1956	40.5	66.6	42.9	59.9	67.6	60.9	94.5	64.4
1957	41.1	65.8	44.2	59.8	68.7	62.4	92.8	67.2
1958	39.2	62.9	44.9	57.9	67.7	62.4	87.4	71.4
1959	43.5	66.8	46.1	61.0	71.2	65.1	94.3	69.0
1960	44.9	67.6	47.4	62.0	72.3	66.3	94.6	70.1
1961	46.0	67.0	48.6	61.9	74.3	68.6	94.6	72.5
1962	50.0	69.6	51.3	64.6	77.5	71.8	97.6	73.6
1963	53.3	71.3	53.7	66.4	80.3	74.8	99.3	75.4
1964	57.0	73.6	56.7	68.9	82.7	77.5	100.6	77.1
1965	62.0	77.5	60.6	72.9	85.0	79.9	102.3	78.1
1966	66.4	81.8	66.4	77.6	85.6	81.2	100.1	81.1
1967	68.0	82.9	70.7	79.6	85.4	82.0	96.1	85.3
1968	72.4	85.5	74.5	82.6	87.7	84.8	97.2	87.2
1969	75.6	88.9	78.4	86.1	87.8	85.0	96.4	88.2
1970	75.0	87.9	81.1	86.1	87.1	85.4	92.5	92.3
1971	78.4	87.7	83.4	86.6	90.6	89.4	94.1	95.0
1972	84.9	92.2	86.8	90.7	93.5	92.1	97.8	94.2
1973	91.6	96.9	90.3	95.2	96.2	94.5	101.4	93.2
1974	88.6	97.1	92.5	95.9	92.4	91.3	95.8	95.3
1975	86.9	92.0	92.7	92.2	94.2	94.4	93.7	100.8
1976	93.3	95.8	95.8	95.8	97.4	97.4	97.4	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.9	100.8	100.4	101.8	98.6
1979	109.3	109.0	105.9	108.2	101.1	100.3	103.2	97.2
1980	108.5	107.5	106.3	107.2	101.3	101.0	102.1	98.9
1981	112.2	108.5	109.3	108.7	103.3	103.5	102.7	100.7

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.7	312.2	72.0	206.6	36.7	24.3	105.2	23.1
1949	74.4	309.5	72.4	205.2	36.2	24.0	102.7	23.4
1950	78.5	286.4	74.4	193.1	40.7	27.4	105.5	26.0
1951	74.6	271.3	75.7	185.2	40.3	27.5	98.5	27.9
1952	76.5	258.1	77.0	178.3	42.9	29.6	99.3	29.9
1953	80.5	238.8	77.5	167.7	48.0	33.7	103.8	32.5
1954	82.4	232.0	78.2	164.2	50.2	35.5	105.3	33.7
1955	84.9	235.9	80.5	167.4	50.7	36.0	105.4	34.1
1956	83.7	224.6	81.0	161.3	51.9	37.3	103.3	36.1
1957	81.5	206.6	82.1	151.6	53.7	39.4	99.2	39.7
1958	85.1	191.6	82.8	143.5	59.3	44.4	102.7	43.2
1959	80.5	191.8	84.4	144.3	55.8	42.0	95.4	44.0
1960	85.0	185.0	85.3	140.7	60.4	46.0	99.7	46.1
1961	84.6	175.1	85.4	135.0	62.7	48.3	99.1	48.7
1962	84.2	169.7	86.0	132.1	63.7	49.6	97.9	50.7
1963	86.9	162.6	86.7	128.3	67.7	53.4	100.2	53.3
1964	84.8	153.8	87.5	123.5	68.7	55.2	96.9	56.9
1965	87.9	149.8	88.2	121.4	72.4	58.7	99.6	58.9
1966	83.0	135.7	88.6	113.4	73.2	61.2	93.6	65.3
1967	87.2	130.8	89.4	110.9	78.7	66.7	97.6	68.3
1968	85.5	128.0	90.1	109.5	78.1	66.8	94.9	70.4
1969	87.4	121.8	90.6	106.1	82.3	71.7	96.5	74.3
1970	92.1	113.5	91.4	102.4	90.0	81.2	100.7	80.5
1971	97.4	110.2	92.5	101.3	96.2	88.4	105.3	83.9
1972	95.2	111.4	92.9	102.1	93.3	85.5	102.5	83.4
1973	94.6	109.0	94.7	101.8	92.9	86.8	99.8	86.9
1974	95.3	109.1	95.8	102.4	93.1	87.3	99.5	87.8
1975	101.3	105.9	98.2	102.0	99.3	95.7	103.2	92.7
1976	96.7	101.1	98.9	100.0	96.8	95.7	97.9	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	101.7	98.7	99.9	99.9	98.1	101.1	97.0
1979	106.4	99.1	103.0	100.7	105.7	107.4	103.4	103.9
1980	107.8	96.8	104.4	100.3	107.4	111.3	103.3	107.8
1981	114.4	96.5	105.6	100.7	113.6	118.6	108.4	109.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.9	79.4	39.2	68.5	52.3	45.1	91.5	49.3
1949	34.0	72.4	39.8	63.7	53.4	46.9	85.3	55.0
1950	38.7	78.2	41.3	68.3	56.7	49.5	93.6	52.9
1951	43.1	84.2	44.6	73.6	58.6	51.2	96.6	53.0
1952	44.5	85.4	46.5	75.0	59.4	52.1	95.8	54.4
1953	47.6	89.8	48.1	78.6	60.5	53.0	98.9	53.6
1954	44.2	82.1	48.9	73.3	60.3	53.8	90.4	59.6
1955	48.9	86.6	50.9	77.1	63.4	56.5	96.2	58.7
1956	49.3	87.9	53.3	78.8	62.6	56.1	92.5	60.6
1957	49.5	86.5	54.8	78.2	63.3	57.2	90.4	63.3
1958	45.3	79.4	55.2	73.3	61.8	57.0	82.0	69.5
1959	50.5	84.7	56.3	77.3	65.4	59.7	89.9	66.4
1960	50.7	84.4	57.1	77.4	65.6	60.1	88.8	67.7
1961	50.8	82.3	58.1	76.1	66.7	61.7	87.4	70.6
1962	55.1	85.6	59.5	78.9	69.8	64.4	92.6	69.5
1963	59.7	86.5	60.9	79.9	74.7	69.0	98.1	70.4
1964	64.0	88.4	62.7	81.8	78.2	72.4	102.0	71.0
1965	69.9	93.6	65.5	86.4	80.9	74.6	106.7	70.0
1966	75.2	99.7	69.9	92.1	81.7	75.4	107.7	70.0
1967	75.1	99.6	73.8	93.0	80.7	75.4	101.8	74.1
1968	79.2	101.4	76.6	95.1	83.2	78.1	103.4	75.5
1969	81.8	103.0	79.6	97.1	84.2	79.4	102.8	77.2
1970	77.1	97.3	81.5	93.3	82.6	79.2	94.6	83.7
1971	78.8	93.7	82.5	90.9	86.7	84.1	95.5	88.1
1972	86.3	97.8	84.6	94.5	91.4	88.3	102.1	86.5
1973	96.0	103.2	87.7	99.3	96.7	93.1	109.4	85.1
1974	92.0	101.2	92.1	98.9	93.0	90.9	99.9	91.0
1975	85.5	91.4	93.6	92.0	93.0	93.5	91.4	102.4
1976	93.7	95.9	96.5	96.1	97.5	97.7	97.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.4	104.1	104.3	101.0	100.9	101.2	99.6
1979	108.6	106.6	108.8	107.2	101.4	101.9	99.9	102.0
1980	103.6	102.2	111.9	104.6	99.0	101.4	92.7	109.4
1981	105.8	101.7	115.4	105.2	100.6	104.0	91.7	113.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	36.2	64.9	37.2	55.5	65.2	55.7	97.1	57.4
1949	36.1	64.2	38.0	55.2	65.3	56.2	94.9	59.2
1950	38.7	64.7	39.3	55.9	69.2	59.9	98.5	60.8
1951	40.3	66.6	40.3	57.5	70.0	60.5	99.9	60.5
1952	41.6	67.1	41.2	58.2	71.6	62.0	101.1	61.4
1953	42.9	67.8	42.2	59.0	72.7	63.2	101.6	62.2
1954	43.2	67.6	43.3	59.2	73.0	63.8	99.7	64.0
1955	46.2	69.9	44.9	61.2	75.5	66.0	102.9	64.2
1956	47.9	72.1	46.2	63.1	76.0	66.5	103.7	64.2
1957	48.7	72.1	47.7	63.6	76.6	67.5	102.0	66.2
1958	49.4	70.7	49.0	63.0	78.4	69.9	100.9	69.3
1959	51.2	73.0	50.6	65.1	78.7	70.1	101.2	69.3
1960	53.5	73.9	52.3	66.2	80.8	72.4	102.4	70.7
1961	54.9	73.6	53.9	66.6	82.4	74.6	101.8	73.2
1962	57.4	74.5	56.0	67.9	84.5	77.0	102.6	75.1
1963	58.9	75.4	58.1	69.3	85.1	78.1	101.5	77.0
1964	62.4	77.3	60.5	71.3	87.6	80.8	103.2	78.3
1965	66.0	79.2	63.2	73.6	89.8	83.3	104.4	79.8
1966	69.4	80.6	66.2	75.5	92.0	86.1	104.8	82.2
1967	71.7	81.0	68.8	76.6	93.6	88.5	104.2	84.9
1968	75.5	82.6	71.8	78.8	95.8	91.4	105.1	86.9
1969	77.5	86.0	75.2	82.1	94.4	90.1	103.1	87.4
1970	78.6	86.8	78.1	83.7	93.9	90.5	100.7	89.9
1971	81.1	87.9	81.1	85.5	94.9	92.3	100.0	92.3
1972	85.8	90.1	84.5	88.1	97.4	95.2	101.5	93.8
1973	89.9	93.3	88.5	91.6	98.1	96.3	101.5	94.8
1974	89.2	94.8	91.6	93.6	95.2	94.1	97.4	96.6
1975	89.4	93.3	93.7	93.5	95.6	95.8	95.4	100.3
1976	94.2	95.8	96.5	96.1	98.0	98.3	97.6	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.4	103.8	104.9	99.8	99.3	100.8	98.5
1979	107.3	109.8	107.5	109.0	98.4	97.7	99.8	97.9
1980	108.6	111.1	111.0	111.1	97.7	97.7	97.8	100.0
1981	110.2	112.4	114.4	113.1	97.4	98.1	96.3	101.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.1	112.5	38.7	80.5	70.9	50.8	147.6	34.4
1949	50.0	97.2	39.4	72.1	69.4	51.5	126.9	40.6
1950	56.0	98.3	41.4	73.6	76.1	57.0	135.3	42.1
1951	61.2	102.5	43.0	76.6	79.9	59.7	142.3	42.0
1952	60.3	99.6	44.9	75.7	79.6	60.6	134.4	45.1
1953	61.7	96.8	46.4	74.8	82.4	63.7	132.8	48.0
1954	59.6	88.5	48.7	71.1	83.9	67.4	122.4	55.1
1955	66.5	93.3	51.6	75.0	88.7	71.3	129.0	55.3
1956	70.1	97.0	54.1	78.2	89.7	72.3	129.7	55.7
1957	70.0	96.2	56.7	78.8	88.8	72.8	123.4	59.0
1958	64.3	85.0	58.8	73.3	87.7	75.6	109.3	69.2
1959	67.2	86.5	61.4	75.3	89.2	77.7	109.4	71.0
1960	68.2	84.1	63.6	74.9	91.1	81.1	107.2	75.6
1961	68.5	80.0	66.2	73.7	92.9	85.7	103.6	82.7
1962	70.5	78.2	68.4	73.7	95.6	90.1	103.1	87.5
1963	73.5	76.3	70.1	73.4	100.2	96.4	104.9	91.9
1964	76.5	77.1	73.2	75.2	101.8	99.2	104.6	94.8
1965	79.5	76.9	75.3	76.0	104.6	103.4	105.6	97.9
1966	83.6	77.2	77.7	77.2	108.3	108.4	107.6	100.7
1967	85.8	74.6	79.5	76.6	112.1	115.0	107.9	106.6
1968	89.0	73.3	81.5	76.7	116.1	121.5	109.3	111.1
1969	92.2	75.3	83.6	78.7	117.0	122.4	110.3	110.9
1970	95.7	74.8	84.7	79.0	121.2	127.9	112.9	113.2
1971	93.2	72.8	85.3	78.0	119.5	128.0	109.3	117.1
1972	96.1	74.9	85.8	79.4	121.0	128.3	112.0	114.5
1973	97.0	77.4	86.9	81.3	119.3	125.4	111.6	112.4
1974	97.3	83.2	88.5	85.4	113.9	116.9	109.9	106.4
1975	95.4	88.8	91.2	89.8	106.2	107.4	104.5	102.7
1976	96.6	94.5	95.0	94.7	102.0	102.2	101.6	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.7	104.8	104.7	99.2	99.2	99.1	100.1
1979	106.3	116.6	109.2	113.5	93.6	91.2	97.3	93.7
1980	111.6	125.0	113.9	120.4	92.7	89.3	97.9	91.2
1981	118.2	136.4	120.1	129.6	91.2	86.6	98.4	88.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios

(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.9	64.5	25.0	61.8	77.6	74.3	191.9	38.7
1949	47.9	63.9	25.1	61.2	78.2	75.0	191.1	39.2
1950	52.8	66.7	27.7	64.0	82.6	79.2	190.5	41.6
1951	58.7	73.1	30.6	70.2	83.7	80.3	192.1	41.8
1952	61.1	74.7	32.3	71.8	85.1	81.8	189.4	43.2
1953	63.0	73.0	31.8	70.2	89.7	86.2	198.0	43.5
1954	65.0	71.7	33.1	69.1	94.0	90.5	196.2	46.1
1955	68.9	75.7	35.0	73.0	94.5	91.0	196.9	46.2
1956	73.8	80.8	37.8	77.9	94.8	91.4	195.2	46.8
1957	74.0	78.6	41.3	76.1	97.2	94.1	179.1	52.6
1958	76.1	75.5	43.2	73.4	103.7	100.8	176.4	57.2
1959	82.2	80.0	46.9	77.8	105.6	102.7	175.3	58.6
1960	83.3	78.2	49.5	76.3	109.2	106.6	168.4	63.3
1961	84.3	77.2	52.6	75.5	111.6	109.2	160.4	68.1
1962	87.5	78.8	56.0	77.2	113.3	111.1	156.3	71.1
1963	90.2	80.9	60.0	79.5	113.5	111.4	150.2	74.2
1964	94.2	83.2	64.0	81.8	115.1	113.3	147.2	77.0
1965	98.3	85.7	68.2	84.5	116.4	114.7	144.2	79.5
1966	98.6	88.0	71.4	86.8	113.6	112.1	138.2	81.1
1967	96.5	84.5	75.3	83.8	115.2	114.2	128.1	89.1
1968	102.7	83.6	77.9	83.1	123.7	122.9	131.8	93.2
1969	100.8	91.0	81.2	90.2	111.7	110.7	124.2	89.1
1970	96.5	89.4	83.0	88.9	108.6	108.0	116.3	92.8
1971	104.7	92.2	86.2	91.7	114.1	113.5	121.5	93.4
1972	107.3	96.3	91.4	95.9	111.8	111.3	117.4	94.9
1973	108.7	101.6	95.0	101.1	107.5	106.9	114.4	93.5
1974	96.3	101.0	98.5	100.8	95.5	95.4	97.8	97.5
1975	87.3	89.8	97.3	90.4	96.6	97.2	89.7	108.4
1976	95.4	92.4	97.4	92.8	102.7	103.2	97.9	105.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	111.6	103.1	111.0	95.7	95.3	103.1	92.4
1979	105.2	118.2	105.6	117.3	89.7	89.0	99.7	89.3
1980	98.2	115.8	103.0	114.9	85.5	84.9	95.4	89.0
1981	95.6	112.8	102.9	112.2	85.3	84.8	93.0	91.2

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.7	115.7	64.2	105.4	56.6	51.6	92.9	55.5
1949	52.2	105.7	65.5	97.7	53.4	49.4	79.7	62.0
1950	54.6	104.7	66.6	97.1	56.2	52.2	82.0	63.6
1951	59.5	109.1	68.1	101.0	58.9	54.5	87.4	62.4
1952	57.6	106.6	69.3	99.2	58.0	54.0	83.1	65.0
1953	57.1	106.1	70.3	99.0	57.7	53.8	81.2	66.3
1954	53.4	99.0	70.7	93.4	57.2	54.0	75.6	71.4
1955	58.2	101.5	71.2	95.5	61.0	57.3	81.8	70.1
1956	60.3	102.4	72.0	96.3	62.6	58.9	83.8	70.3
1957	59.9	99.9	73.2	94.6	63.3	60.0	81.8	73.3
1958	55.5	91.6	73.3	88.0	63.1	60.6	75.8	80.0
1959	58.6	94.3	74.2	90.3	64.8	62.1	79.0	78.6
1960	59.3	93.3	75.1	89.7	66.1	63.6	78.9	80.6
1961	59.0	90.7	75.5	87.7	67.2	65.0	78.1	83.2
1962	61.3	91.1	76.1	88.1	69.6	67.3	80.6	83.5
1963	64.6	91.0	76.4	88.0	73.4	71.0	84.6	83.9
1964	66.6	92.3	77.6	89.4	74.5	72.1	85.9	84.0
1965	72.5	95.1	79.3	92.0	78.8	76.2	91.5	83.3
1966	78.6	97.2	81.5	94.1	83.5	80.8	96.4	83.8
1967	78.3	90.7	83.6	89.2	87.8	86.4	93.7	92.2
1968	83.9	97.4	86.3	95.1	88.2	86.1	97.1	88.6
1969	84.9	99.2	88.5	97.0	87.5	85.6	96.0	89.1
1970	83.5	97.8	90.1	96.2	86.7	85.3	92.6	92.1
1971	83.0	95.6	90.9	94.6	87.7	86.8	91.3	95.1
1972	89.2	97.7	90.7	96.3	92.7	91.3	98.4	92.8
1973	94.6	100.9	93.4	99.3	95.3	93.8	101.4	92.6
1974	96.9	99.8	95.6	98.9	98.0	97.1	101.4	95.7
1975	90.4	94.2	97.3	94.8	95.4	96.0	93.0	103.3
1976	94.9	96.3	98.7	96.8	98.0	98.5	96.1	102.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	105.1	101.4	104.3	102.5	101.8	105.5	96.5
1979	109.4	108.5	103.0	107.4	101.9	100.8	106.2	95.0
1980	104.3	105.2	103.7	104.9	99.5	99.2	100.6	98.7
1981	100.9	99.2	104.0	100.2	100.7	101.8	97.0	104.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	113.4	295.8	96.3	252.2	45.0	38.3	117.8	32.6
1949	94.2	252.2	97.9	218.5	43.1	37.3	96.2	38.8
1950	102.4	239.6	98.7	208.9	49.0	42.7	103.7	41.2
1951	115.2	250.8	100.1	218.0	52.8	45.9	115.0	39.9
1952	110.3	239.9	101.3	209.7	52.6	46.0	108.8	42.2
1953	107.3	236.0	102.1	206.8	51.9	45.5	105.1	43.3
1954	96.9	209.3	102.2	186.1	52.1	46.3	94.8	48.8
1955	107.2	213.2	102.1	189.1	56.7	50.3	105.0	47.9
1956	109.8	209.5	102.6	186.4	58.9	52.4	107.0	49.0
1957	103.4	197.4	103.3	177.1	58.4	52.4	100.1	52.3
1958	91.9	168.2	102.7	154.1	59.6	54.6	89.5	61.0
1959	96.1	163.6	102.3	150.5	63.9	58.8	94.0	62.5
1960	95.0	155.9	102.9	144.5	65.8	61.0	92.4	66.0
1961	94.2	145.9	102.5	136.6	69.0	64.5	91.9	70.3
1962	97.7	143.3	101.7	134.3	72.7	68.2	96.1	71.0
1963	102.6	139.7	101.2	131.4	78.1	73.5	101.3	72.5
1964	107.1	138.8	102.0	130.8	81.9	77.2	105.0	73.5
1965	115.7	135.3	102.6	128.2	90.3	85.5	112.8	75.8
1966	123.7	133.0	103.9	126.7	97.6	93.0	119.0	78.1
1967	117.2	126.0	104.4	121.2	96.7	93.0	112.2	82.9
1968	115.0	122.4	104.1	118.3	97.2	93.9	110.4	85.1
1969	118.2	119.8	104.6	116.3	101.6	98.7	113.1	87.3
1970	112.9	116.9	104.3	114.0	99.0	96.6	108.3	89.2
1971	100.4	109.1	103.5	107.8	93.1	92.0	97.0	94.8
1972	101.3	106.4	102.7	105.6	96.0	95.2	98.7	96.5
1973	105.5	107.4	102.0	106.2	99.4	98.3	103.4	95.0
1974	108.4	108.3	101.7	106.8	101.5	100.1	106.6	93.9
1975	95.2	100.1	101.2	100.4	94.9	95.1	94.1	101.1
1976	99.8	99.2	100.6	99.5	100.3	100.7	99.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	99.4	99.5	99.4	104.7	104.8	104.6	100.1
1979	108.3	103.0	99.2	102.2	106.0	105.1	109.2	96.3
1980	106.4	97.2	98.6	97.5	109.1	109.4	107.9	101.4
1981	102.2	91.9	97.9	93.2	109.6	111.2	104.4	106.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.3	72.9	33.5	65.6	70.6	63.5	138.3	45.9
1949	41.8	70.9	34.5	64.1	65.1	58.9	120.9	48.7
1950	42.7	72.7	35.9	65.8	65.0	58.8	119.2	49.3
1951	45.6	75.5	37.4	68.3	66.8	60.5	122.0	49.5
1952	44.4	74.9	38.6	68.1	65.2	59.3	114.9	51.6
1953	44.6	75.2	39.8	68.5	65.0	59.3	112.0	52.9
1954	42.6	72.7	40.5	66.6	63.9	58.6	105.1	55.7
1955	46.0	75.0	41.6	68.7	67.0	61.3	110.7	55.4
1956	48.0	76.9	42.6	70.4	68.2	62.5	112.6	55.5
1957	49.1	76.7	44.4	70.5	69.5	64.0	110.5	57.9
1958	46.5	73.5	45.2	68.0	68.3	63.3	102.9	61.5
1959	49.2	77.9	47.2	72.0	68.4	63.2	104.2	60.7
1960	50.4	78.4	48.6	72.7	69.4	64.3	103.8	62.0
1961	50.2	77.6	49.7	72.3	69.5	64.7	101.0	64.0
1962	52.3	78.7	51.6	73.5	71.1	66.4	101.3	65.5
1963	55.1	79.4	52.5	74.2	74.3	69.4	104.9	66.1
1964	56.5	81.3	54.2	76.1	74.3	69.5	104.2	66.7
1965	61.8	85.6	56.9	80.1	77.1	72.1	108.4	66.5
1966	67.4	88.7	60.1	83.2	81.0	75.9	112.2	67.7
1967	68.6	82.3	63.6	78.6	87.3	83.4	107.9	77.3
1968	76.1	91.5	69.3	87.1	87.4	83.2	109.8	75.8
1969	76.7	94.4	73.1	90.1	85.0	81.2	104.9	77.4
1970	76.1	93.3	76.5	90.0	84.6	81.6	99.5	82.0
1971	78.7	92.4	78.9	89.7	87.7	85.1	99.7	85.4
1972	86.2	95.6	79.2	92.4	93.3	90.1	108.8	82.9
1973	91.9	99.3	85.1	96.5	95.3	92.6	108.1	85.7
1974	94.1	97.8	89.7	96.2	97.8	96.2	104.9	91.7
1975	89.2	92.8	93.5	92.9	96.0	96.2	95.4	100.8
1976	93.6	95.7	96.9	95.9	97.6	97.9	96.6	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	106.2	103.2	105.6	102.0	101.4	104.3	97.2
1979	109.7	109.8	106.7	109.1	100.5	99.9	102.8	97.2
1980	103.8	107.1	108.7	107.4	96.7	97.0	95.5	101.6
1981	100.6	100.9	109.9	102.7	98.0	99.7	91.5	108.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.7	74.8	16.6	51.6	26.6	18.4	82.5	22.2
1949	14.4	72.2	17.4	50.1	28.7	19.9	82.5	24.2
1950	15.1	69.4	18.1	48.5	31.1	21.8	83.6	26.0
1951	16.7	70.9	18.8	49.6	33.6	23.5	88.6	26.5
1952	17.7	72.4	20.0	50.8	34.8	24.4	88.6	27.6
1953	19.4	74.9	21.0	52.7	36.7	25.8	92.2	28.0
1954	19.8	73.9	22.1	52.2	37.9	26.8	89.5	29.9
1955	21.7	73.8	23.3	52.5	41.4	29.4	93.1	31.6
1956	23.0	76.0	25.1	54.3	42.5	30.3	91.8	33.0
1957	24.7	75.4	27.4	54.4	45.4	32.8	90.0	36.4
1958	25.6	70.9	29.2	52.0	49.2	36.0	87.7	41.1
1959	27.5	70.3	30.9	51.9	53.0	39.1	88.9	44.0
1960	29.1	71.1	33.2	53.4	54.6	41.0	87.8	46.6
1961	30.5	69.8	35.3	53.6	56.8	43.6	86.4	50.5
1962	32.7	70.3	37.8	55.0	59.5	46.5	86.6	53.7
1963	35.1	70.3	40.4	56.2	62.4	49.9	86.7	57.5
1964	37.4	72.7	43.4	58.8	63.6	51.4	86.1	59.7
1965	40.6	76.1	46.9	62.2	65.3	53.4	86.7	61.6
1966	44.4	79.9	50.5	65.9	67.3	55.5	87.8	63.3
1967	47.6	81.1	54.4	68.3	69.7	58.7	87.6	67.1
1968	51.6	82.9	58.2	71.0	72.6	62.2	88.5	70.2
1969	57.2	89.5	62.5	76.5	74.7	63.9	91.5	69.8
1970	62.6	94.1	67.5	81.3	76.9	66.5	92.7	71.7
1971	66.0	91.7	72.5	82.5	80.0	71.9	91.0	79.0
1972	71.5	96.2	77.6	87.3	82.0	74.3	92.2	80.7
1973	76.7	99.0	82.9	91.3	84.1	77.5	92.6	83.7
1974	79.7	100.4	88.3	94.6	84.3	79.4	90.2	88.0
1975	86.8	97.4	91.9	94.8	91.6	89.1	94.4	94.3
1976	93.2	96.8	95.4	96.1	97.0	96.3	97.7	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	105.3	106.0	105.6	103.8	104.1	103.4	100.7
1979	120.6	111.2	112.5	111.8	107.9	108.5	107.2	101.2
1980	131.9	115.1	118.6	116.7	113.0	114.7	111.3	103.1
1981	140.4	116.2	124.8	120.3	116.7	120.7	112.5	107.3

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.2	81.4	25.2	49.5	36.9	22.4	72.3	31.0
1949	20.2	81.8	26.8	50.4	40.1	24.7	75.3	32.8
1950	21.7	82.0	28.4	51.3	42.3	26.4	76.2	34.6
1951	25.1	81.9	30.0	51.9	48.4	30.7	83.7	36.6
1952	26.9	81.5	31.7	52.5	51.3	33.0	85.1	38.8
1953	28.9	82.0	33.5	53.6	53.9	35.3	86.2	40.9
1954	31.7	81.7	35.2	54.3	58.5	38.8	90.1	43.0
1955	33.5	82.2	36.7	55.2	60.7	40.8	91.2	44.7
1956	35.9	81.8	38.3	55.7	64.5	43.9	94.0	46.8
1957	38.1	82.6	40.1	57.0	66.9	46.1	94.9	48.6
1958	39.6	82.4	41.9	57.7	68.7	48.1	94.5	50.8
1959	43.3	82.9	43.3	58.5	73.9	52.2	100.0	52.2
1960	46.4	83.3	44.7	59.5	78.0	55.7	103.9	53.7
1961	48.9	82.9	46.0	60.2	81.2	59.0	106.3	55.5
1962	51.1	82.6	47.3	60.9	83.9	61.9	108.1	57.3
1963	53.8	83.8	48.6	62.2	86.5	64.1	110.5	58.0
1964	57.3	83.8	50.2	63.1	90.7	68.3	114.1	59.9
1965	60.1	86.0	52.1	65.1	92.3	69.9	115.5	60.5
1966	64.0	86.8	54.5	66.9	95.6	73.7	117.5	62.7
1967	67.3	88.4	57.4	69.3	97.0	76.1	117.1	65.0
1968	73.6	89.6	60.9	71.9	102.4	82.2	120.9	68.0
1969	78.4	92.5	64.8	75.4	104.0	84.7	121.1	70.0
1970	80.7	95.3	68.9	79.0	102.2	84.7	117.1	72.4
1971	86.4	94.6	73.6	81.7	105.9	91.3	117.4	77.8
1972	89.1	96.7	78.7	85.6	104.2	92.2	113.3	81.4
1973	93.5	99.3	84.0	89.8	104.0	94.1	111.3	84.5
1974	90.0	100.1	88.9	93.2	96.6	89.9	101.2	88.8
1975	96.1	97.7	92.3	94.3	101.8	98.3	104.1	94.4
1976	96.5	98.0	95.8	96.6	99.9	98.5	100.8	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.5	104.6	104.9	100.0	99.4	100.3	99.1
1979	107.8	109.4	109.3	109.3	98.6	98.6	98.7	99.9
1980	110.2	112.6	113.3	113.0	97.5	97.8	97.2	100.6
1981	110.7	117.8	117.2	117.4	94.3	94.0	94.5	99.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.8	71.3	24.4	63.2	53.4	47.3	138.4	34.2
1949	34.6	71.7	25.2	63.7	54.3	48.2	137.3	35.1
1950	37.9	72.0	28.2	64.7	58.6	52.6	134.5	39.1
1951	38.2	73.4	29.5	66.0	57.9	52.1	129.8	40.2
1952	39.4	73.3	30.1	66.1	59.6	53.7	131.0	41.0
1953	40.7	74.1	31.1	66.9	60.8	54.9	130.7	42.0
1954	41.0	74.4	32.3	67.5	60.7	55.1	126.7	43.5
1955	44.7	76.3	35.4	69.7	64.1	58.6	126.1	46.5
1956	46.0	78.0	37.3	71.5	64.3	59.0	123.4	47.8
1957	46.8	77.9	38.7	71.8	65.1	60.0	120.9	49.6
1958	46.7	77.3	39.6	71.5	65.4	60.4	118.0	51.2
1959	50.0	80.0	41.8	74.1	67.4	62.5	119.5	52.3
1960	50.9	81.0	43.9	75.3	67.5	62.8	115.9	54.2
1961	51.4	80.5	45.0	75.1	68.5	63.8	114.3	55.9
1962	54.7	81.1	47.4	75.9	72.1	67.5	115.4	58.4
1963	56.8	80.6	49.9	75.9	74.8	70.4	113.9	61.9
1964	60.3	83.1	52.6	78.4	76.9	72.5	114.6	63.3
1965	64.2	85.3	56.5	80.8	79.5	75.3	113.6	66.3
1966	67.7	85.5	61.5	81.8	82.8	79.2	110.1	71.9
1967	69.4	84.7	64.2	81.5	85.1	81.9	108.0	75.8
1968	73.6	84.1	68.4	81.6	90.2	87.5	107.6	81.3
1969	75.2	91.9	72.7	88.8	84.6	81.8	103.4	79.1
1970	76.4	88.4	75.4	86.3	88.6	86.5	101.4	85.3
1971	80.3	89.8	79.4	88.2	91.1	89.4	101.2	88.3
1972	86.4	92.2	83.5	90.8	95.2	93.7	103.5	90.5
1973	91.5	94.5	88.6	93.5	97.8	96.8	103.2	93.8
1974	89.7	94.4	91.5	93.9	95.5	95.0	98.0	96.9
1975	90.8	94.3	91.0	93.8	96.8	96.3	99.8	96.5
1976	95.4	96.8	94.9	96.5	98.8	98.5	100.5	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	103.6	105.5	103.9	101.0	101.2	99.4	101.8
1979	107.5	105.8	109.0	106.3	101.2	101.6	98.6	103.1
1980	105.3	105.7	113.3	106.9	98.5	99.6	92.9	107.3
1981	107.4	105.9	117.0	107.6	99.8	101.4	91.8	110.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.1	43.8	13.7	36.6	84.9	70.9	227.2	31.2
1949	31.9	44.4	13.6	37.0	86.0	71.7	233.9	30.7
1950	33.7	45.5	13.6	37.9	89.0	74.1	247.3	30.0
1951	36.2	46.8	13.7	38.9	93.1	77.4	264.3	29.3
1952	37.8	48.6	14.2	40.3	93.6	77.8	266.7	29.2
1953	39.5	50.2	15.0	41.8	94.6	78.8	263.8	29.9
1954	41.1	52.1	14.9	43.2	95.1	78.9	276.1	28.6
1955	44.1	54.3	15.6	45.0	97.8	81.2	282.3	28.8
1956	47.0	55.3	16.3	46.0	102.2	85.0	288.0	29.5
1957	48.8	56.2	16.9	46.8	104.3	86.9	289.4	30.0
1958	49.0	57.8	17.9	48.3	101.5	84.7	273.9	30.9
1959	50.3	59.8	19.3	50.1	100.4	84.2	261.2	32.2
1960	53.1	61.8	20.6	52.0	102.0	85.8	257.2	33.4
1961	54.8	63.1	22.4	53.5	102.5	86.9	245.2	35.4
1962	56.8	65.1	24.4	55.6	102.2	87.3	232.7	37.5
1963	58.3	66.3	27.0	57.3	101.7	87.9	215.6	40.7
1964	60.5	68.6	32.1	60.5	100.1	88.3	188.3	46.9
1965	62.4	70.3	34.8	62.6	99.8	88.8	179.4	49.5
1966	64.9	71.1	37.0	63.8	101.8	91.3	175.4	52.1
1967	68.1	73.3	40.2	66.3	102.6	92.9	169.3	54.9
1968	72.7	76.8	42.5	69.7	104.3	94.6	170.9	55.3
1969	77.9	81.0	48.6	74.6	104.3	96.1	160.1	60.0
1970	79.8	82.7	52.9	76.8	104.0	96.6	150.8	64.1
1971	81.4	84.6	57.2	79.2	102.8	96.2	142.3	67.6
1972	84.3	87.1	64.3	82.6	102.1	96.8	131.1	73.8
1973	88.6	90.6	71.9	86.9	102.0	97.8	123.3	79.4
1974	92.5	93.0	78.7	90.2	102.5	99.4	117.5	84.6
1975	94.5	94.6	84.6	92.6	102.0	99.9	111.8	89.3
1976	95.6	96.4	91.6	95.5	100.1	99.1	104.4	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	107.0	109.2	107.4	97.4	97.8	95.8	102.0
1979	108.5	111.8	119.2	113.2	95.8	97.1	91.0	106.6
1980	111.8	116.0	130.6	118.9	94.1	96.4	85.6	112.6
1981	114.6	118.6	143.4	123.5	92.8	96.7	79.9	120.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.4	52.8	61.2	60.4	65.2	74.6	64.3	115.9
1949	41.4	53.6	61.5	60.7	68.2	77.3	67.3	114.9
1950	43.7	54.3	62.1	61.3	71.3	80.6	70.4	114.4
1951	43.3	55.0	62.3	61.6	70.3	78.8	69.5	113.4
1952	45.2	55.9	62.5	61.8	73.2	80.8	72.4	111.7
1953	45.4	57.7	62.7	62.2	73.0	78.7	72.4	108.7
1954	46.3	59.6	63.4	63.1	73.4	77.6	73.0	106.4
1955	47.7	61.7	64.4	64.1	74.5	77.4	74.2	104.3
1956	48.6	62.5	64.9	64.7	75.1	77.7	74.8	103.8
1957	50.1	63.8	65.7	65.5	76.5	78.6	76.3	103.0
1958	52.3	65.4	66.2	66.1	79.1	79.9	79.0	101.2
1959	55.5	66.7	67.1	67.1	82.8	83.2	82.7	100.6
1960	55.9	67.0	68.2	68.1	82.1	83.4	82.0	101.7
1961	58.1	66.2	69.5	69.3	83.9	87.8	83.7	104.9
1962	61.6	67.6	71.1	70.9	86.9	91.2	86.6	105.3
1963	62.3	73.3	73.0	73.0	85.2	84.9	85.3	99.6
1964	64.8	74.5	74.5	74.5	87.0	87.0	87.0	100.0
1965	68.5	74.5	76.7	76.5	89.5	91.9	89.3	102.9
1966	70.3	72.1	78.6	78.2	89.9	97.4	89.4	109.0
1967	71.5	73.1	80.1	79.6	89.8	97.8	89.2	109.6
1968	73.4	72.8	81.6	81.1	90.5	100.8	89.9	112.1
1969	75.1	77.7	83.5	83.2	90.3	96.7	89.9	107.5
1970	74.9	79.1	85.6	85.2	88.0	94.7	87.5	108.2
1971	80.0	84.1	88.3	88.0	90.9	95.1	90.6	104.9
1972	82.9	88.3	91.2	91.0	91.1	94.0	90.9	103.3
1973	84.5	91.4	94.6	94.3	89.6	92.5	89.4	103.5
1974	86.6	92.5	96.1	95.8	90.4	93.7	90.2	103.9
1975	85.4	91.4	97.1	96.7	88.3	93.5	88.0	106.3
1976	89.9	93.7	98.3	98.0	91.7	96.0	91.4	105.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	110.9	101.9	102.6	99.6	92.1	100.3	91.9
1979	101.5	119.7	103.8	105.0	96.7	84.9	97.8	86.8
1980	105.3	122.5	105.3	106.5	98.9	85.9	100.1	85.9
1981	102.0	122.4	106.5	107.7	94.8	83.4	95.8	87.0

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.4	44.5	27.6	39.1	90.6	79.4	128.2	61.9
1949	35.4	45.3	28.4	39.9	88.8	78.0	124.5	62.7
1950	36.9	45.5	29.5	40.2	91.7	81.2	125.1	64.9
1951	37.4	46.3	30.7	41.2	90.8	80.7	121.8	66.3
1952	39.8	48.0	31.7	42.6	93.3	82.9	125.4	66.2
1953	41.2	49.5	33.0	44.1	93.4	83.1	124.6	66.7
1954	41.3	50.6	34.3	45.2	91.4	81.6	120.4	67.7
1955	42.9	52.9	35.9	47.3	90.7	81.1	119.4	67.9
1956	43.8	55.5	37.7	49.6	88.4	79.0	116.3	67.9
1957	44.0	56.8	39.4	51.0	86.2	77.4	111.6	69.4
1958	47.2	56.4	41.2	51.2	92.1	83.6	114.5	73.0
1959	43.8	58.2	43.2	53.0	82.6	75.3	101.4	74.3
1960	50.1	60.1	45.3	55.0	91.1	83.4	110.6	75.4
1961	53.0	61.1	47.7	56.5	93.9	86.8	111.1	78.2
1962	54.2	62.3	50.5	58.2	93.0	86.9	107.2	81.1
1963	53.4	64.7	53.3	60.7	87.8	82.5	100.2	82.3
1964	58.6	65.7	56.4	62.5	93.7	89.2	103.8	85.9
1965	61.7	67.2	59.6	64.6	95.5	91.8	103.4	88.7
1966	65.6	69.9	63.1	67.5	97.2	93.9	104.0	90.2
1967	71.2	74.7	66.3	71.8	99.2	95.3	107.4	88.7
1968	72.8	79.1	70.3	76.0	95.7	92.0	103.5	88.9
1969	74.4	74.5	74.2	74.4	99.9	99.8	100.1	99.7
1970	76.5	82.2	77.6	80.8	94.7	93.0	98.6	94.3
1971	75.0	83.1	80.6	82.3	91.1	90.2	93.0	97.0
1972	79.3	84.0	84.0	84.0	94.4	94.4	94.3	100.1
1973	83.6	88.0	87.8	87.9	95.1	95.0	95.2	99.8
1974	84.3	92.6	91.1	92.1	91.6	91.1	92.6	98.3
1975	85.9	92.5	93.8	92.9	92.5	92.9	91.6	101.4
1976	92.5	95.3	96.7	95.8	96.6	97.0	95.6	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	105.1	103.8	104.8	97.9	97.6	98.9	98.8
1979	105.4	111.0	107.4	110.0	95.8	94.9	98.1	96.8
1980	111.8	114.8	110.9	113.7	98.3	97.4	100.8	96.6
1981	115.5	119.8	114.2	118.2	97.7	96.4	101.2	95.3

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TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	71.7	102.5	45.2	40.9	64.7	63.3
1949	45.2	110.8	72.6	100.9	44.8	40.8	62.3	65.5
1950	48.3	110.6	74.1	101.3	47.7	43.7	65.2	67.0
1951	48.9	112.9	77.1	103.9	47.1	43.3	63.5	68.2
1952	51.6	112.5	77.2	103.6	49.8	45.9	66.9	68.7
1953	54.7	112.2	77.1	103.4	52.9	48.7	71.0	68.7
1954	54.1	110.7	76.8	102.3	52.9	48.8	70.4	69.4
1955	55.3	111.1	78.2	102.9	53.8	49.8	70.8	70.4
1956	57.8	111.6	79.4	103.7	55.8	51.8	72.8	71.1
1957	59.9	108.5	79.3	101.5	59.0	55.2	75.5	73.1
1958	60.3	106.8	78.8	100.1	60.2	56.5	76.5	73.8
1959	61.1	107.6	79.6	101.0	60.5	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.7	61.9	58.0	79.1	73.3
1961	62.9	106.7	79.2	100.2	62.7	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.8	65.6	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.6	70.4	66.6	86.8	76.7
1964	71.0	105.1	81.3	99.6	71.3	67.6	87.4	77.3
1965	74.2	106.3	80.8	100.4	73.9	69.7	91.7	76.0
1966	78.3	107.3	82.5	101.5	77.1	73.0	94.8	76.9
1967	77.1	107.6	84.9	102.4	75.2	71.6	90.8	78.8
1968	78.1	107.1	86.2	102.4	76.3	72.9	90.6	80.5
1969	81.6	107.6	86.8	103.0	79.2	75.8	93.9	80.7
1970	82.7	106.5	88.1	102.4	80.8	77.7	94.0	82.7
1971	86.0	104.3	89.5	101.0	85.2	82.5	96.2	85.8
1972	91.2	103.3	90.2	100.4	90.9	88.3	101.1	87.4
1973	101.2	101.5	90.5	99.0	102.2	99.8	111.8	89.2
1974	95.0	101.1	92.3	99.1	95.8	94.0	102.9	91.3
1975	95.6	98.1	95.1	97.4	98.1	97.4	100.5	96.9
1976	99.6	100.2	98.2	99.8	99.8	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.2	100.7	99.2	99.8	97.8	102.1
1979	105.0	101.3	105.9	102.5	102.4	103.6	99.1	104.5
1980	110.6	99.9	106.2	101.4	109.1	110.7	104.2	106.2
1981	112.2	98.2	106.9	100.3	111.9	114.3	105.0	108.8

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TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	40.4	94.7	57.4	33.3	134.6	24.7
1949	58.3	152.9	40.3	89.7	65.1	38.2	144.9	26.3
1950	55.3	146.7	42.8	87.9	62.9	37.7	129.3	29.1
1951	66.8	149.7	49.4	92.3	72.3	44.6	135.2	33.0
1952	64.6	151.3	51.8	94.2	68.6	42.7	124.7	34.3
1953	59.6	147.5	54.0	93.5	63.8	40.4	110.3	36.6
1954	55.9	145.6	53.3	92.2	60.6	38.4	104.9	36.6
1955	59.4	147.9	56.1	94.6	62.9	40.2	106.1	37.9
1956	63.0	144.3	60.2	94.8	66.5	43.7	104.6	41.7
1957	65.7	139.5	61.3	93.1	70.6	47.1	107.2	43.9
1958	70.0	138.8	61.4	92.8	75.5	50.5	114.1	44.2
1959	74.3	137.9	64.1	93.6	79.4	53.9	115.8	46.5
1960	76.7	134.5	66.0	93.3	82.2	57.0	116.3	49.1
1961	79.9	132.3	67.6	93.4	85.5	60.4	118.2	51.1
1962	82.7	130.2	69.6	93.7	88.2	63.5	118.7	53.5
1963	83.4	127.4	71.2	93.5	89.2	65.5	117.2	55.9
1964	80.2	130.3	72.6	95.6	84.0	61.6	110.5	55.7
1965	79.4	122.5	75.2	93.9	84.5	64.8	105.6	61.3
1966	80.7	123.6	77.9	96.0	84.0	65.2	103.5	63.0
1967	83.4	125.0	79.9	97.7	85.4	66.7	104.4	63.9
1968	84.6	120.3	82.3	97.2	87.0	70.4	102.8	68.4
1969	85.9	116.1	83.4	96.2	89.3	74.0	103.0	71.8
1970	91.0	117.6	82.6	96.3	94.6	77.4	110.2	70.3
1971	92.6	109.5	84.3	94.2	98.3	84.5	109.8	76.9
1972	95.0	105.6	87.6	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.7	81.7
1974	99.4	110.7	95.9	101.7	97.7	89.8	103.6	86.6
1975	102.2	108.4	95.2	100.4	101.8	94.3	107.3	87.9
1976	104.1	107.5	97.2	101.2	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	100.6	101.8	101.4	99.8	100.6	99.4	101.2
1979	103.1	99.6	102.2	101.2	101.9	103.5	100.9	102.6
1980	104.8	99.1	103.7	101.9	102.8	105.8	101.0	104.7
1981	106.6	103.1	106.1	105.0	101.5	103.4	100.4	102.9

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TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	35.0	111.5	34.8	27.4	110.8	24.7
1949	35.5	121.9	39.9	99.1	35.8	29.1	89.0	32.7
1950	37.2	134.6	45.8	109.9	33.9	27.7	81.4	34.0
1951	39.1	129.8	52.6	108.7	35.9	30.1	74.3	40.5
1952	38.4	122.9	56.7	105.1	36.5	31.2	67.7	46.1
1953	37.7	122.2	59.7	105.6	35.7	30.8	63.1	48.8
1954	35.7	108.4	61.3	96.3	37.0	32.9	58.2	56.5
1955	39.7	113.8	64.6	101.2	39.2	34.9	61.4	56.8
1956	40.4	110.8	68.0	100.2	40.3	36.5	59.4	61.4
1957	39.4	103.5	70.1	95.7	41.2	38.1	56.3	67.7
1958	38.8	96.5	70.9	91.0	42.7	40.2	54.8	73.5
1959	42.5	103.3	73.4	96.6	44.0	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.3	43.9	41.4	55.8	74.2
1961	41.7	96.6	73.3	91.3	45.7	43.2	56.8	75.9
1962	44.3	98.9	73.8	93.2	47.5	44.8	60.0	74.7
1963	56.1	97.0	74.1	91.8	61.2	57.9	75.7	76.4
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.6	76.0
1965	65.5	104.5	77.2	98.3	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.2	102.8	69.2	65.2	87.6	74.4
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.7	105.8	68.7	65.0	84.7	76.7
1969	74.4	111.1	88.0	105.8	70.4	67.0	84.6	79.2
1970	78.7	105.9	88.9	102.0	77.2	74.3	88.5	84.0
1971	81.9	105.7	90.5	102.2	80.2	77.5	90.6	85.6
1972	87.9	111.0	93.4	106.9	82.2	79.2	94.1	84.2
1973	91.4	112.3	95.9	108.5	84.3	81.4	95.3	85.4
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.8	94.2	81.2	82.1	78.2	105.0
1976	87.9	100.2	98.7	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	100.7	99.7	101.5	101.9	100.5	101.4
1979	102.9	97.2	100.6	98.0	104.9	105.8	102.2	103.6
1980	96.5	93.5	100.9	95.2	101.3	103.2	95.6	107.9
1981	96.0	90.7	100.9	93.1	103.1	105.8	95.1	111.3

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TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	49.2	87.4	49.5	47.0	87.9	53.5
1949	43.1	89.9	46.6	85.2	50.6	47.9	92.4	51.8
1950	46.7	92.9	47.0	87.9	53.2	50.3	99.3	50.6
1951	49.4	92.1	51.1	87.7	56.4	53.7	96.7	55.5
1952	50.5	94.4	51.1	89.8	56.3	53.5	99.0	54.1
1953	51.1	96.4	50.8	91.5	55.8	52.9	100.6	52.6
1954	48.0	89.8	48.5	85.3	56.2	53.4	98.9	54.0
1955	51.5	94.5	49.9	89.7	57.4	54.5	103.2	52.8
1956	52.6	94.1	51.6	89.6	58.8	55.9	102.0	54.8
1957	51.9	92.6	51.2	88.2	58.8	56.0	101.4	55.2
1958	50.9	88.4	49.3	84.3	60.5	57.6	103.3	55.8
1959	54.2	95.0	50.0	90.1	60.2	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.2	62.9	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.7	62.9	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.7	62.9	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.1	64.7	61.7	105.4	58.5
1964	63.0	99.4	59.4	94.9	66.3	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.7	68.7	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.3	71.7	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.2	71.2	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.1	73.7	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.2	73.4	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.1	71.1	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.0	71.7	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.2	84.3	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.7	87.2	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.3	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.2	101.4	101.2	104.6	104.6	104.4	100.2
1979	108.1	98.6	101.5	98.9	109.2	109.6	106.4	103.0
1980	107.8	96.2	102.4	96.9	111.3	112.1	105.4	106.4
1981	108.1	95.6	103.9	96.7	111.8	113.0	104.0	108.7

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TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	85.9	111.8	40.3	37.8	52.5	71.9
1949	39.6	107.3	77.6	100.6	39.4	36.9	51.1	72.3
1950	42.3	115.8	72.0	105.6	40.1	36.5	58.7	62.2
1951	42.8	119.5	69.1	107.6	39.8	35.8	62.0	57.8
1952	42.4	114.4	64.1	102.6	41.3	37.0	66.0	56.0
1953	40.4	111.3	59.6	99.1	40.7	36.3	67.7	53.6
1954	39.0	102.8	56.3	91.8	42.5	37.9	69.3	54.7
1955	45.2	107.4	55.1	95.0	47.5	42.1	82.0	51.3
1956	45.3	104.4	53.4	92.3	49.0	43.4	84.7	51.2
1957	42.7	94.1	49.8	83.7	51.1	45.4	85.8	52.9
1958	39.7	89.8	47.1	79.7	49.8	44.2	84.2	52.5
1959	47.0	97.9	45.9	85.6	54.9	48.0	102.4	46.9
1960	43.9	92.5	48.0	81.8	53.7	47.5	91.5	52.0
1961	42.1	87.9	48.5	78.3	53.8	48.0	86.9	55.2
1962	42.3	89.1	49.7	79.6	53.1	47.4	85.0	55.8
1963	52.7	87.4	52.2	78.8	67.0	60.4	101.0	59.8
1964	64.0	90.5	54.1	81.6	78.4	70.7	118.3	59.7
1965	71.7	93.4	57.3	84.5	84.8	76.7	125.1	61.3
1966	70.0	94.5	61.0	86.1	81.3	74.1	114.7	64.6
1967	71.9	91.8	62.7	84.4	85.2	78.4	114.7	68.3
1968	74.8	91.3	64.6	84.4	88.6	81.9	115.9	70.7
1969	73.8	94.8	68.3	88.0	83.9	77.8	108.1	72.0
1970	75.7	89.2	70.5	84.4	89.7	84.9	107.4	79.1
1971	77.8	92.3	73.3	87.4	89.0	84.3	106.1	79.4
1972	88.6	101.1	77.9	95.1	93.2	87.7	113.7	77.1
1973	93.2	105.0	83.0	99.3	93.8	88.7	112.2	79.1
1974	90.9	96.6	90.3	95.0	95.7	94.0	100.7	93.4
1975	86.0	81.9	92.0	84.5	101.7	105.0	93.4	112.4
1976	94.9	94.1	95.6	94.5	100.5	100.9	99.2	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.4	106.0	105.0	96.6	97.0	95.6	101.5
1979	103.7	106.6	111.5	108.0	96.0	97.3	92.9	104.7
1980	92.2	96.0	113.1	100.5	91.7	96.1	81.6	117.8
1981	90.2	92.7	115.3	98.7	91.4	97.3	78.3	124.3

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TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	53.8	73.4	58.3	55.6	79.6	69.8
1949	40.5	69.3	52.7	66.7	60.7	58.4	76.8	76.1
1950	49.1	81.8	54.1	77.5	63.4	60.1	90.8	66.2
1951	46.9	79.2	57.3	75.7	61.9	59.2	81.8	72.3
1952	51.9	79.7	57.8	76.2	68.1	65.2	89.8	72.6
1953	50.4	81.6	58.2	77.9	64.6	61.7	86.6	71.3
1954	48.3	74.3	57.0	71.5	67.6	65.1	84.8	76.7
1955	56.2	81.0	58.8	77.5	72.5	69.3	95.6	72.5
1956	56.5	82.1	60.6	78.7	71.8	68.8	93.2	73.8
1957	53.9	80.5	60.5	77.3	69.7	66.9	89.1	75.1
1958	49.1	76.7	59.5	73.9	66.5	64.0	82.5	77.6
1959	56.1	83.9	60.0	80.1	70.0	66.8	93.5	71.5
1960	55.3	82.4	60.4	78.9	70.1	67.1	91.6	73.3
1961	53.3	79.2	60.1	76.1	70.1	67.3	88.8	75.8
1962	57.6	83.8	60.7	80.1	71.9	68.8	94.9	72.5
1963	60.2	83.7	62.1	80.2	75.0	71.9	96.9	74.2
1964	65.3	87.6	63.3	83.8	78.0	74.6	103.2	72.2
1965	73.7	93.3	65.9	89.0	82.9	79.0	111.9	70.6
1966	78.0	98.7	70.8	94.3	82.7	79.0	110.3	71.7
1967	74.0	96.5	73.6	92.7	79.8	76.7	100.6	76.3
1968	79.5	99.2	75.4	95.3	83.4	80.1	105.3	76.1
1969	84.8	100.7	79.1	97.1	87.3	84.2	107.2	78.6
1970	72.8	93.2	82.6	91.4	79.7	78.1	88.2	88.6
1971	76.3	95.8	83.7	93.7	81.4	79.7	91.2	87.4
1972	92.2	104.9	87.6	102.0	90.5	88.0	105.3	83.6
1973	94.5	109.5	93.2	106.7	88.5	86.3	101.4	85.2
1974	91.3	103.8	98.3	102.9	88.8	88.0	92.9	94.7
1975	80.2	86.3	95.6	87.9	91.2	92.9	83.9	110.8
1976	92.2	92.8	97.8	93.6	98.5	99.4	94.3	105.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.8	104.9	105.7	103.3	103.2	104.1	99.1
1979	112.6	103.8	108.1	104.5	107.7	108.5	104.1	104.2
1980	108.5	97.4	108.3	99.3	109.3	111.4	100.2	111.2
1981	112.8	100.2	110.5	101.9	110.7	112.6	102.1	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.1	59.5	50.8	44.3	73.5	60.3
1949	30.1	64.1	42.1	57.2	52.6	47.0	71.6	65.7
1950	39.2	70.4	43.3	61.8	63.4	55.6	90.5	61.4
1951	41.9	73.8	45.3	64.7	64.7	56.7	92.4	61.4
1952	38.5	72.2	46.5	64.1	60.1	53.4	82.9	64.4
1953	40.8	76.5	47.5	67.3	60.7	53.4	85.9	62.1
1954	41.9	75.5	48.8	67.2	62.4	55.5	85.8	64.7
1955	46.2	79.3	50.8	70.3	65.6	58.2	90.9	64.1
1956	47.5	81.4	53.1	72.5	65.5	58.4	89.5	65.3
1957	44.0	81.1	54.8	73.0	60.3	54.2	80.3	67.6
1958	44.3	79.6	55.4	72.3	61.3	55.6	80.0	69.6
1959	50.1	84.1	56.5	75.6	66.3	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.6	64.2	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.5	66.9	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.1	68.5	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.1	68.9	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.5	72.9	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.3	74.0	67.6	94.7	71.4
1966	66.7	97.1	70.0	88.9	75.1	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.7	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	92.9	77.4	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.5	82.6	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.3	78.7	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	85.0	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.6	92.8	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.4	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.1	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.0	104.1	101.9	100.3	101.2	98.2	103.1
1979	105.2	101.4	109.4	103.8	101.4	103.8	96.2	107.9
1980	99.2	99.2	114.7	103.8	95.5	100.0	86.5	115.7
1981	100.5	98.8	119.4	105.0	95.8	101.8	84.2	120.9

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TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	52.4	66.9	64.3	61.0	82.1	74.3
1949	45.1	69.5	52.2	66.0	68.4	65.0	86.4	75.2
1950	45.5	69.6	52.5	66.2	68.8	65.4	86.7	75.4
1951	46.5	71.0	53.4	67.4	68.9	65.5	87.0	75.2
1952	47.4	71.8	52.5	68.0	69.7	66.0	90.3	73.0
1953	49.4	74.1	51.4	69.6	70.9	66.7	96.1	69.4
1954	52.0	74.2	50.2	69.5	74.7	70.0	103.5	67.7
1955	55.3	76.3	50.2	71.3	77.6	72.4	110.0	65.8
1956	57.4	78.7	50.2	73.2	78.5	73.0	114.4	63.8
1957	58.2	79.0	49.7	73.3	79.4	73.7	117.2	62.9
1958	56.7	78.0	49.6	72.6	78.2	72.7	114.4	63.5
1959	61.0	80.0	49.9	74.2	82.1	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.3	81.9	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.7	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.4	85.2	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.4	91.1	85.8	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.9	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.3	96.8	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.5	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.4	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.3	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.5	104.6	104.5	99.4	99.4	99.3	100.1
1979	106.4	108.7	109.3	108.9	97.7	97.8	97.3	100.5
1980	109.9	111.2	113.0	111.5	98.5	98.8	97.2	101.7
1981	114.7	113.4	116.6	114.1	100.6	101.2	98.4	102.9

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TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	29.3	47.5	36.4	28.1	59.0	47.7
1949	16.9	57.5	31.0	46.1	36.7	29.5	54.6	54.0
1950	20.3	59.8	33.1	48.3	41.9	33.9	61.3	55.4
1951	21.7	65.9	36.6	53.4	40.6	32.9	59.2	55.6
1952	21.9	67.3	39.5	55.5	39.4	32.5	55.3	58.8
1953	23.4	71.0	41.9	58.7	40.0	33.0	56.0	59.0
1954	24.7	69.5	43.8	58.7	42.0	35.5	56.3	63.1
1955	28.4	71.5	45.7	60.7	46.9	39.8	62.2	64.0
1956	29.8	73.7	48.0	62.9	47.3	40.4	62.0	65.2
1957	31.1	74.7	50.1	64.5	48.1	41.5	61.9	67.1
1958	30.5	73.1	51.8	64.4	47.4	41.7	58.9	70.8
1959	35.8	75.3	53.4	66.3	53.9	47.5	67.0	70.9
1960	35.5	77.1	53.9	67.6	52.6	46.1	65.9	69.9
1961	37.3	77.2	55.1	68.2	54.7	48.3	67.6	71.4
1962	39.9	79.1	56.4	69.8	57.1	50.4	70.8	71.2
1963	44.7	80.5	57.4	71.1	62.8	55.5	77.9	71.2
1964	48.4	81.9	59.0	72.6	66.6	59.1	82.0	72.0
1965	52.8	85.2	62.3	76.0	69.5	62.0	84.8	73.1
1966	56.2	90.0	66.0	80.3	70.0	62.5	85.2	73.3
1967	57.3	93.3	69.5	83.8	68.4	61.4	82.5	74.4
1968	65.2	96.7	72.1	86.9	75.1	67.4	90.5	74.5
1969	68.0	99.1	75.0	89.5	75.9	68.6	90.7	75.6
1970	68.8	97.9	77.5	89.8	76.5	70.2	88.8	79.1
1971	73.0	94.5	79.1	88.4	82.5	77.2	92.3	83.7
1972	79.9	94.4	79.9	88.7	90.1	84.6	99.9	84.7
1973	87.6	97.1	81.1	90.8	96.6	90.3	108.0	83.6
1974	85.4	98.5	85.9	93.5	91.4	86.7	99.5	87.2
1975	85.0	93.3	89.4	91.7	92.7	91.1	95.1	95.8
1976	95.1	96.9	94.2	95.8	99.3	98.2	101.0	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.5	103.9	103.0	100.2	100.7	99.4	101.4
1979	109.0	104.0	106.9	105.1	103.7	104.8	101.9	102.8
1980	105.5	103.5	109.9	106.0	99.6	102.0	96.0	106.2
1981	108.4	102.9	113.3	107.0	101.3	105.3	95.6	110.1

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TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios

(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.4	108.1	40.7	63.3	59.1	34.6	91.9	37.7
1949	40.2	104.4	42.7	63.8	63.0	38.5	94.0	40.9
1950	43.4	103.6	44.0	64.6	67.3	41.9	98.6	42.5
1951	45.2	109.7	45.8	67.7	66.7	41.2	98.7	41.7
1952	45.6	110.4	48.2	69.8	65.4	41.4	94.6	43.7
1953	47.6	114.3	51.5	73.5	64.7	41.7	92.4	45.1
1954	47.5	113.1	53.3	74.6	63.7	42.0	89.0	47.2
1955	52.6	112.7	55.1	75.8	69.4	46.7	95.5	48.9
1956	54.2	112.4	57.0	77.2	70.2	48.2	95.1	50.7
1957	52.6	110.6	59.0	78.3	67.2	47.5	89.1	53.4
1958	53.7	107.2	59.5	77.7	69.1	50.1	90.2	55.5
1959	60.6	103.4	59.3	76.3	79.4	58.6	102.2	57.3
1960	62.2	101.8	60.4	76.4	81.4	61.1	103.0	59.4
1961	64.5	97.2	61.8	75.4	85.6	66.4	104.4	63.6
1962	69.6	94.6	62.9	75.0	92.8	73.6	110.7	66.5
1963	71.8	90.8	63.5	73.9	97.2	79.1	113.2	69.9
1964	73.6	88.6	63.9	73.3	100.5	83.1	115.1	72.2
1965	77.4	89.3	65.2	74.3	104.2	86.8	118.7	73.1
1966	79.1	90.9	66.9	75.9	104.1	87.0	118.2	73.6
1967	78.9	91.2	69.9	77.9	101.3	86.5	112.8	76.7
1968	81.1	92.1	72.9	80.0	101.3	88.0	111.2	79.2
1969	77.7	89.9	75.5	80.7	96.3	86.4	102.9	84.0
1970	89.4	95.0	78.2	84.2	106.1	94.1	114.3	82.3
1971	94.6	97.0	81.1	86.8	109.0	97.5	116.7	83.5
1972	91.8	96.8	82.6	87.7	104.6	94.8	111.1	85.3
1973	107.0	95.1	83.7	87.8	121.9	112.5	127.9	88.0
1974	102.5	96.2	87.7	90.8	112.9	106.5	116.8	91.2
1975	91.8	93.1	92.0	92.4	99.3	98.5	99.7	98.8
1976	101.1	96.7	96.6	96.6	104.6	104.5	104.7	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.8	102.3	102.9	101.5	99.8	102.2	97.6
1979	111.5	106.4	106.1	106.0	105.2	104.8	105.1	99.7
1980	102.5	95.5	111.0	105.2	97.4	107.3	92.3	116.2
1981	99.8	105.3	116.2	112.0	89.1	94.8	85.9	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	28.1	39.2	58.2	54.1	81.4	66.5
1949	20.9	37.7	28.8	35.8	58.4	55.5	72.6	76.4
1950	23.5	43.8	30.3	41.0	57.4	53.6	77.6	69.1
1951	30.3	46.7	33.0	43.8	69.1	64.9	91.7	70.7
1952	30.6	47.3	34.9	44.7	68.4	64.6	87.6	73.8
1953	30.3	50.0	36.6	47.2	64.2	60.5	82.9	73.1
1954	27.2	45.0	37.6	43.5	62.5	60.4	72.2	83.6
1955	30.1	52.0	39.4	49.3	61.1	58.0	76.5	75.8
1956	29.8	51.1	41.3	49.1	60.7	58.3	72.1	80.8
1957	29.6	51.9	42.4	49.9	59.3	57.0	69.8	81.7
1958	28.7	46.5	43.6	46.0	62.3	61.6	65.7	93.7
1959	35.7	52.7	45.5	51.2	69.8	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.4	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.4	78.2	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.6	83.5	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.6	86.0	82.9	100.1	82.8
1965	55.7	67.8	54.6	65.0	85.6	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.2	86.0	82.3	103.5	79.5
1967	60.7	73.5	61.4	71.0	85.6	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.2	88.6	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.5	92.9	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.2	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.1	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.2	95.8	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.3	100.2	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.6	94.3	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.9	105.5	105.9	99.7	99.7	100.1	99.6
1979	106.4	109.1	108.8	109.0	97.6	97.5	97.8	99.7
1980	95.5	101.3	107.1	102.5	93.2	94.4	89.2	105.8
1981	101.9	103.9	107.7	104.7	97.3	98.0	94.6	103.6

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TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	67.1	148.8	69.5	64.0	154.1	41.6
1949	91.9	150.6	66.9	139.6	65.9	61.0	137.3	44.4
1950	91.3	156.0	68.5	144.4	63.2	58.6	133.4	43.9
1951	97.8	147.1	72.6	137.8	70.9	66.4	134.6	49.3
1952	86.2	154.7	72.6	144.1	59.8	55.7	118.7	46.9
1953	91.3	154.0	72.8	143.6	63.5	59.2	125.4	47.2
1954	83.9	145.0	71.1	135.7	61.8	57.8	118.0	49.0
1955	88.1	153.2	73.6	143.1	61.6	57.5	119.7	48.1
1956	88.7	151.0	75.8	141.6	62.6	58.7	117.0	50.2
1957	86.9	146.7	74.8	137.9	63.0	59.2	116.1	51.0
1958	82.1	139.2	72.9	131.2	62.5	59.0	112.6	52.4
1959	100.6	148.6	73.4	139.2	72.2	67.7	136.9	49.4
1960	90.6	141.2	74.6	132.8	68.2	64.1	121.4	52.8
1961	91.4	140.9	75.4	132.6	68.9	64.9	121.2	53.5
1962	99.0	142.0	76.6	133.8	74.0	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.2	77.1	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.0	79.5	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.4	82.7	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.3	82.4	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.1	78.1	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.5	79.6	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	102.1	101.2	102.0	99.2	99.1	100.0	99.1
1979	98.2	95.8	101.0	96.5	101.8	102.5	97.3	105.4
1980	92.0	89.5	101.4	91.1	101.1	102.9	90.8	113.3
1981	92.1	90.2	102.5	91.9	100.3	102.1	89.9	113.6

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TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	39.4	69.8	68.4	58.5	121.3	48.2
1949	44.6	75.0	40.4	65.2	68.3	59.4	110.2	53.9
1950	53.4	81.9	42.2	70.7	75.5	65.2	126.5	51.5
1951	57.3	88.3	45.2	76.2	75.2	64.9	126.7	51.2
1952	55.0	84.3	46.7	73.6	74.7	65.3	117.7	55.5
1953	58.2	86.4	48.2	75.5	77.0	67.4	120.8	55.8
1954	56.7	81.8	49.3	72.5	78.2	69.3	115.1	60.2
1955	65.4	88.4	52.4	78.1	83.7	73.9	124.9	59.2
1956	64.3	90.3	56.6	80.6	79.9	71.3	113.8	62.6
1957	62.5	87.6	59.4	79.4	78.8	71.4	105.3	67.8
1958	61.0	82.2	60.6	75.8	80.4	74.2	100.6	73.7
1959	69.0	90.2	62.6	82.1	84.1	76.5	110.4	69.3
1960	67.5	89.2	64.0	82.0	82.3	75.6	105.4	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.0	75.7
1962	71.3	87.9	66.5	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.1	83.5	92.7	86.5	113.7	76.1
1964	82.6	92.6	69.6	86.1	96.0	89.3	118.8	75.2
1965	85.6	95.2	71.9	88.6	96.6	90.0	119.1	75.6
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.1	77.4
1967	83.7	94.5	77.5	90.1	92.9	88.5	108.0	82.0
1968	87.3	96.1	78.8	91.6	95.4	90.9	110.8	82.0
1969	92.5	98.9	81.4	94.4	98.0	93.5	113.7	82.3
1970	88.9	95.6	83.4	92.5	96.2	93.0	106.6	87.2
1971	90.6	97.2	84.7	94.0	96.4	93.2	106.9	87.2
1972	99.4	103.0	87.3	99.0	100.4	96.5	113.9	84.7
1973	107.3	108.2	90.8	103.8	103.4	99.1	118.1	83.9
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.6
1975	91.7	92.4	95.7	93.2	98.3	99.2	95.8	103.6
1976	100.6	95.8	97.7	96.3	104.5	105.0	103.0	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.0	104.3	104.8	104.2	104.0	104.7	99.3
1979	111.4	106.7	108.1	107.0	104.1	104.4	103.1	101.3
1980	103.4	99.2	110.0	102.0	101.3	104.2	94.0	110.9
1981	104.9	95.4	111.1	99.5	105.4	109.9	94.4	116.4

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TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	40.0	83.9	97.0	80.1	203.7	39.3
1949	72.4	85.7	41.0	73.0	99.1	84.4	176.5	47.8
1950	85.6	99.7	42.6	83.3	102.8	85.9	200.9	42.8
1951	102.6	110.8	46.5	92.4	111.1	92.6	220.8	41.9
1952	91.5	102.1	49.2	87.1	105.1	89.6	185.8	48.2
1953	105.2	110.9	51.7	94.0	111.9	94.9	203.4	46.6
1954	82.2	92.8	52.8	81.6	100.7	88.6	155.7	56.9
1955	101.0	106.5	54.9	91.9	109.9	94.8	184.1	51.5
1956	99.8	108.5	57.9	94.3	105.8	91.9	172.2	53.4
1957	100.6	105.1	61.1	92.9	108.3	95.7	164.8	58.1
1958	76.4	86.9	62.4	80.5	94.8	87.8	122.3	71.8
1959	84.3	93.5	63.5	85.5	98.5	90.1	132.6	67.9
1960	82.8	94.5	65.6	86.8	95.4	87.7	126.3	69.4
1961	78.9	88.7	66.8	83.2	94.9	88.9	118.1	75.3
1962	83.9	91.7	67.4	85.4	98.2	91.5	124.5	73.5
1963	90.4	94.1	68.3	87.4	103.5	96.1	132.3	72.7
1964	102.2	101.1	70.1	92.9	110.0	101.1	145.8	69.3
1965	110.6	107.7	72.5	98.3	112.6	102.7	152.6	67.3
1966	118.0	111.3	76.4	102.0	115.7	106.0	154.4	68.7
1967	111.6	106.7	80.2	100.0	111.7	104.6	139.1	75.2
1968	111.1	107.6	82.9	101.4	109.5	103.2	134.0	77.0
1969	112.5	111.5	85.2	104.9	107.3	100.9	132.0	76.4
1970	103.1	104.4	87.7	100.2	102.8	98.7	117.5	84.0
1971	100.4	96.5	88.4	94.5	106.3	104.0	113.6	91.6
1972	107.1	99.7	89.5	97.1	110.2	107.4	119.6	89.8
1973	125.9	109.0	89.6	104.1	120.9	115.5	140.6	82.2
1974	127.4	109.9	92.7	105.6	120.7	115.9	137.4	84.4
1975	96.0	93.7	96.0	94.3	101.9	102.5	100.0	102.5
1976	100.0	96.5	98.4	97.0	103.2	103.7	101.7	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.6	103.7	105.2	104.6	107.4	97.4
1979	113.3	106.5	103.4	105.8	107.1	106.4	109.6	97.0
1980	97.1	94.3	104.8	97.0	100.1	102.9	92.7	111.1
1981	98.4	93.5	107.2	97.1	101.4	105.2	91.8	114.6

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TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	65.8	26.4	58.4	65.9	58.5	146.0	40.1
1949	35.2	58.0	27.1	52.3	67.4	60.8	129.8	46.8
1950	42.0	66.9	29.9	60.0	69.9	62.7	140.3	44.7
1951	45.8	74.7	34.6	67.3	68.1	61.3	132.3	46.3
1952	48.9	75.3	36.9	68.3	71.6	64.9	132.3	49.0
1953	53.9	82.9	39.5	74.9	71.9	65.0	136.2	47.7
1954	49.4	73.9	40.7	68.0	72.7	66.9	121.5	55.0
1955	52.8	78.3	43.8	72.2	73.2	67.4	120.6	55.9
1956	53.7	78.8	46.9	73.2	73.4	68.1	114.6	59.5
1957	54.8	80.0	48.5	74.5	73.6	68.6	113.0	60.7
1958	49.8	72.3	49.1	68.5	72.8	68.9	101.5	67.9
1959	55.6	76.7	51.2	72.5	76.7	72.4	108.5	66.8
1960	55.6	76.9	52.3	72.8	76.4	72.3	106.3	68.0
1961	55.8	73.8	52.7	70.3	79.4	75.6	105.9	71.4
1962	60.8	78.1	54.0	74.1	82.1	77.9	112.7	69.1
1963	63.4	80.7	55.5	76.5	82.9	78.6	114.2	68.8
1964	67.5	83.2	58.8	79.1	85.3	81.1	114.7	70.7
1965	74.6	89.0	62.9	84.7	88.1	83.7	118.6	70.6
1966	81.7	96.8	67.0	91.9	88.9	84.4	121.9	69.2
1967	83.5	99.6	70.9	94.8	88.1	83.8	117.9	71.1
1968	88.3	103.8	74.9	99.0	89.2	85.1	117.9	72.2
1969	93.3	106.9	77.1	102.0	91.5	87.2	121.0	72.1
1970	85.2	97.9	78.0	94.6	90.1	87.0	109.2	79.7
1971	81.7	92.5	78.9	90.2	90.5	88.3	103.6	85.2
1972	89.9	98.2	81.0	95.4	94.2	91.5	110.9	82.5
1973	100.0	105.7	86.3	102.5	97.5	94.6	115.9	81.6
1974	90.4	103.0	92.7	101.3	89.2	87.7	97.4	90.0
1975	81.3	90.6	93.6	91.1	89.3	89.8	86.9	103.3
1976	92.0	95.3	96.6	95.5	96.4	96.6	95.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	105.4	104.6	105.3	99.2	99.0	99.7	99.3
1979	110.3	107.9	109.5	108.1	102.0	102.2	100.7	101.5
1980	102.9	100.4	110.9	102.1	100.8	102.5	92.8	110.5
1981	101.9	98.1	112.0	100.4	101.5	103.9	91.0	114.2

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TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	28.6	55.7	67.5	59.1	131.3	45.0
1949	33.5	52.9	28.9	47.5	70.4	63.2	115.6	54.7
1950	35.4	56.9	30.2	50.8	69.6	62.2	117.1	53.1
1951	46.0	70.7	33.8	62.4	73.7	65.0	136.1	47.8
1952	50.5	72.6	35.8	64.4	78.5	69.5	140.8	49.4
1953	49.3	73.5	37.7	65.4	75.4	67.1	130.8	51.3
1954	44.2	64.6	38.4	58.7	75.2	68.3	115.0	59.4
1955	45.1	67.8	40.2	61.5	73.3	66.6	112.1	59.4
1956	49.9	73.9	42.5	66.8	74.7	67.5	117.5	57.5
1957	47.1	72.7	43.8	66.2	71.1	64.8	107.5	60.3
1958	39.8	60.9	43.7	57.0	69.8	65.3	91.1	71.8
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.9	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.9	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.5	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.8	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.7	86.0	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.0	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.1	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.5	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.4	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.0	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.4	106.7	108.0	99.9	99.5	101.1	98.4
1979	115.5	115.0	115.0	115.0	100.5	100.5	100.4	100.1
1980	114.4	114.6	119.3	115.6	99.0	99.8	95.9	104.1
1981	120.0	114.1	124.7	116.4	103.1	105.2	96.3	109.3

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TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.8	46.3	34.7	31.4	59.9	52.5
1949	14.7	43.9	26.4	40.5	36.4	33.6	55.8	60.2
1950	17.9	52.2	27.0	47.3	37.9	34.3	66.3	51.7
1951	21.3	59.1	29.3	53.3	40.1	36.1	72.9	49.5
1952	26.1	63.7	30.4	57.1	45.7	41.0	85.9	47.8
1953	27.1	71.3	31.5	63.5	42.7	38.0	86.0	44.2
1954	24.3	61.9	31.4	55.9	43.5	39.2	77.5	50.6
1955	26.1	65.4	32.3	58.9	44.3	39.9	80.8	49.4
1956	28.4	69.9	33.8	62.8	45.2	40.7	84.1	48.4
1957	29.5	70.0	34.4	63.0	46.8	42.2	85.7	49.2
1958	27.8	64.5	34.3	58.6	47.4	43.1	81.1	53.1
1959	33.3	73.1	35.3	65.7	50.7	45.6	94.4	48.3
1960	35.0	75.5	37.7	68.1	51.4	46.3	92.8	49.9
1961	36.9	76.2	40.0	69.1	53.4	48.5	92.3	52.5
1962	41.6	81.3	43.9	74.0	56.2	51.1	94.6	54.0
1963	45.6	80.0	45.7	73.3	62.2	57.0	99.7	57.2
1964	48.2	80.0	48.4	73.9	65.3	60.3	99.6	60.5
1965	57.4	87.0	53.5	80.5	71.3	66.0	107.2	61.5
1966	66.2	100.2	61.9	92.8	71.3	66.1	106.9	61.8
1967	68.8	101.2	67.2	94.7	72.7	68.0	102.4	66.4
1968	72.6	102.5	71.2	96.5	75.2	70.8	101.9	69.5
1969	78.6	104.6	76.3	99.2	79.2	75.2	103.1	72.9
1970	73.2	98.3	79.0	94.7	77.4	74.5	92.7	80.3
1971	74.0	92.1	79.2	89.7	82.5	80.3	93.4	86.0
1972	83.1	96.8	81.4	93.9	88.5	85.9	102.0	84.2
1973	90.7	105.0	89.8	102.1	88.8	86.4	101.0	85.5
1974	84.0	103.3	94.5	101.6	82.7	81.3	88.9	91.5
1975	77.8	88.9	91.9	89.5	87.0	87.5	84.7	103.3
1976	86.7	93.5	95.2	93.8	92.4	92.8	91.1	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.6	106.3	106.5	106.6	106.6	106.9	99.7
1979	121.4	112.3	114.5	112.7	107.7	108.0	106.0	101.9
1980	122.3	111.0	120.0	112.7	108.6	110.2	101.9	108.1
1981	126.5	112.5	126.5	115.1	109.9	112.5	100.0	112.4

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TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	35.4	55.6	41.9	37.1	65.8	56.4
1949	23.6	60.2	35.1	53.7	43.9	39.2	67.3	58.2
1950	31.2	65.5	36.4	57.9	53.8	47.6	85.7	55.6
1951	34.2	78.8	40.3	68.7	49.7	43.4	84.7	51.2
1952	39.0	91.6	42.4	78.6	49.6	42.6	91.9	46.3
1953	47.6	106.1	44.2	89.7	53.1	44.9	107.7	41.7
1954	43.7	92.3	45.5	80.0	54.6	47.3	95.9	49.3
1955	51.7	99.8	48.2	86.3	59.9	51.8	107.1	48.3
1956	44.3	97.6	52.4	85.8	51.6	45.3	84.5	53.6
1957	47.3	99.4	54.0	87.6	54.0	47.6	87.6	54.3
1958	39.1	82.9	53.4	75.3	51.9	47.1	73.3	64.4
1959	43.7	87.9	54.2	79.2	55.2	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.5	57.2	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.7	57.3	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.4	62.0	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.7	67.8	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.1	71.0	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.3	74.4	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.7	73.7	67.3	101.7	66.1
1967	73.5	108.1	79.8	100.8	72.9	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.6	77.2	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.1	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.8	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.2	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	106.1	106.5	106.2	98.1	98.2	97.8	100.4
1979	98.7	107.3	115.0	109.2	90.4	92.0	85.9	107.2
1980	83.0	95.9	122.2	102.6	80.9	86.5	67.9	127.4
1981	83.7	94.3	126.5	102.5	81.7	88.8	66.2	134.1

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TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	26.1	42.9	42.6	37.9	69.9	54.2
1949	17.8	43.5	26.4	39.2	45.4	40.9	67.4	60.6
1950	20.9	47.3	28.2	42.5	49.2	44.2	74.1	59.7
1951	25.6	57.6	32.2	51.4	49.8	44.4	79.5	55.8
1952	29.4	63.3	34.0	56.2	52.3	46.5	86.6	53.7
1953	32.0	68.9	35.5	60.9	52.6	46.5	90.3	51.5
1954	31.5	61.8	35.7	55.3	57.0	51.0	88.3	57.7
1955	33.5	62.7	37.9	56.5	59.2	53.3	88.2	60.4
1956	35.4	65.7	40.6	59.3	59.8	54.0	87.2	61.9
1957	34.4	65.8	41.8	59.6	57.7	52.2	82.1	63.6
1958	34.1	61.2	41.9	56.0	60.9	55.6	81.4	68.4
1959	38.3	66.8	43.6	60.7	63.1	57.3	87.8	65.3
1960	39.6	68.2	45.7	62.2	63.7	58.1	86.7	67.0
1961	38.6	67.3	47.3	61.9	62.3	57.3	81.6	70.2
1962	43.1	69.4	49.0	63.9	67.4	62.0	87.9	70.6
1963	45.1	69.4	51.2	64.4	70.1	65.0	88.1	73.8
1964	46.3	69.9	53.3	65.3	71.0	66.2	86.8	76.3
1965	53.4	74.2	56.1	69.1	77.2	72.0	95.2	75.6
1966	61.3	83.2	61.0	77.1	79.5	73.7	100.6	73.3
1967	63.2	85.9	65.5	80.2	78.8	73.6	96.5	76.3
1968	67.0	86.4	68.3	81.2	82.5	77.6	98.0	79.1
1969	74.4	89.5	72.4	84.5	88.1	83.2	102.9	80.9
1970	65.5	85.1	75.8	82.4	79.4	76.9	86.3	89.1
1971	66.0	79.5	77.5	78.9	83.7	83.1	85.2	97.5
1972	73.7	84.1	80.5	83.0	88.7	87.6	91.6	95.7
1973	84.2	91.4	85.8	89.7	93.9	92.2	98.2	93.9
1974	89.0	96.0	92.1	94.8	93.9	92.8	96.6	96.0
1975	84.9	87.3	92.6	88.9	95.6	97.3	91.8	106.0
1976	91.4	92.8	96.3	93.8	97.4	98.5	94.9	103.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.6	105.1	106.4	101.5	101.2	102.7	98.6
1979	112.0	113.0	112.1	112.9	99.2	99.1	99.9	99.2
1980	114.5	115.0	116.1	115.5	99.2	99.6	98.6	101.0
1981	118.2	116.0	121.3	117.7	100.4	101.9	97.4	104.6

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TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	46.6	88.0	45.7	40.2	86.4	46.5
1949	36.2	89.7	47.8	80.3	45.0	40.3	75.6	53.3
1950	41.1	95.0	52.6	85.5	48.1	43.2	78.1	55.3
1951	43.1	95.7	60.9	87.9	49.0	45.0	70.7	63.6
1952	44.1	93.4	70.1	88.2	50.0	47.3	63.0	75.1
1953	45.8	99.3	76.8	94.3	48.6	46.1	59.6	77.4
1954	43.9	90.6	79.3	88.2	49.8	48.5	55.4	87.6
1955	48.7	92.9	85.4	91.3	53.3	52.4	57.0	91.9
1956	49.0	93.6	90.9	93.2	52.6	52.3	53.9	97.1
1957	48.2	89.8	92.5	90.6	53.2	53.7	52.1	103.0
1958	47.4	86.1	92.6	87.7	54.1	55.1	51.2	107.7
1959	53.1	90.0	94.8	91.2	58.2	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.8	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.3	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.8	66.8	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.7	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.6	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.5	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.7	77.9	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.4	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.4	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.1	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	104.7	103.4	104.3	96.6	96.2	97.5	98.7
1979	102.4	101.4	110.7	103.0	99.5	101.0	92.5	109.2
1980	99.8	95.0	113.6	98.3	101.6	105.1	87.9	119.5
1981	104.3	95.3	118.6	99.5	104.8	109.4	87.9	124.4

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TABLE VI

S.I.C. 331 - Blast Furnace, Basic Steel Products

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	75.2	102.6	77.7	88.7	84.7	73.3	96.7	75.8
1959	85.9	105.1	76.5	89.6	95.9	81.7	112.2	72.8
1960	87.3	112.3	79.0	94.4	92.5	77.8	110.6	70.3
1961	83.7	104.5	79.9	90.7	92.3	80.1	104.8	76.5
1962	86.2	104.7	79.7	90.7	95.1	82.4	108.2	76.1
1963	91.4	106.4	80.4	91.9	99.4	85.9	113.6	75.6
1964	103.8	115.8	82.6	97.3	106.7	89.6	125.7	71.3
1965	113.9	120.9	85.2	101.0	112.8	94.2	133.7	70.4
1966	116.6	119.4	89.3	102.7	113.6	97.7	130.6	74.8
1967	108.7	114.7	93.0	102.7	105.9	94.8	116.8	81.1
1968	112.0	116.1	95.9	104.9	106.8	96.5	116.8	82.6
1969	115.5	118.5	97.9	107.1	107.9	97.5	118.0	82.6
1970	103.5	112.4	99.7	105.4	98.1	92.0	103.7	88.7
1971	96.2	101.8	98.9	100.3	96.0	94.5	97.3	97.1
1972	103.2	103.2	98.7	100.8	102.4	100.0	104.6	95.6
1973	124.3	112.4	97.1	104.3	119.2	110.5	128.0	86.4
1974	134.3	112.2	98.0	104.7	128.4	119.8	137.1	87.4
1975	98.3	97.3	100.9	99.2	99.1	101.0	97.4	103.7
1976	102.8	99.1	102.2	100.7	102.0	103.8	100.6	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	102.4	98.4	100.3	110.8	108.4	112.9	96.0
1979	112.2	104.1	97.3	100.5	111.6	107.8	115.3	93.5
1980	92.5	103.3	95.5	99.2	93.2	89.5	96.8	92.5
1981	99.1	90.6	95.6	93.2	106.3	109.4	103.8	105.5

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TABLE VI

S.I.C. 367 - Electronic Components

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	15.7	44.2	17.3	32.3	48.7	35.6	90.8	39.2
1959	20.4	53.8	19.2	38.5	53.1	38.0	106.7	35.6
1960	21.7	58.3	21.7	42.1	51.6	37.3	100.2	37.2
1961	21.6	61.4	24.3	45.0	48.0	35.2	89.0	39.5
1962	25.8	67.1	27.8	49.7	51.9	38.5	92.8	41.5
1963	25.8	65.7	30.3	49.9	51.7	39.3	85.1	46.2
1964	27.5	66.6	33.9	51.9	53.0	41.3	81.2	50.8
1965	37.6	77.9	38.9	60.4	[illegible].2	48.2	96.6	49.9
1966	48.7	98.7	47.0	75.6	64.4	49.3	103.6	47.6
1967	53.7	95.5	52.5	76.0	70.6	56.2	102.3	54.9
1968	52.3	95.1	56.7	77.6	67.4	54.9	92.2	59.6
1969	57.0	98.2	62.0	81.5	69.9	58.0	91.8	63.2
1970	54.0	90.7	65.6	78.7	68.7	59.6	82.3	72.4
1971	52.4	81.9	67.6	74.5	70.4	64.0	77.5	82.5
1972	64.4	89.4	70.7	80.1	80.4	72.0	91.0	79.1
1973	80.3	103.2	79.6	91.3	87.9	77.8	100.9	77.1
1974	77.4	104.4	86.6	95.4	81.1	74.2	89.4	83.0
1975	64.6	84.0	88.1	86.0	75.1	76.9	73.3	104.9
1976	82.8	91.5	93.3	92.4	89.6	90.5	88.8	101.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.4	109.6	107.9	108.7	106.1	105.3	106.9	98.5
1979	138.3	125.4	117.8	121.6	113.8	110.3	117.4	93.9
1980	142.5	132.1	127.4	129.7	109.8	107.8	111.9	96.4
1981	147.1	144.5	137.6	141.0	104.3	101.8	106.9	95.2

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TABLE VI

S.I.C. 2043 - Cereal Breakfast Foods
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	54.4	66.7	73.2	46.6	70.1	51.2	60.7	84.3	71.5	76.1
1964	56.1	67.8	75.0	51.2	71.1	54.1	63.7	85.0	73.2	76.7
1965	58.0	69.6	76.3	54.4	74.2	56.6	65.8	85.9	74.6	77.8
1966	59.4	70.5	76.3	54.0	76.3	57.3	65.8	87.0	74.8	79.5
1967	61.1	71.3	76.6	57.4	84.5	59.7	67.6	88.3	75.2	81.2
1968	62.9	68.4	75.5	55.9	88.7	60.1	66.1	90.9	73.7	85.4
1969	64.7	69.9	75.1	55.7	91.8	61.0	66.1	92.3	73.8	87.6
1970	69.2	71.3	78.6	60.2	91.8	65.6	69.7	94.0	76.8	90.2
1971	71.9	74.9	80.0	66.3	85.6	69.6	73.4	94.8	78.7	91.3
1972	78.4	76.0	80.3	66.4	94.8	73.4	73.8	99.5	79.2	99.0
1973	74.2	81.9	83.4	74.1	108.2	74.4	79.4	93.7	83.0	89.4
1974	63.8	84.8	86.1	75.0	82.5	68.7	81.1	84.7	85.8	74.4
1975	73.1	87.1	87.0	84.7	89.7	78.1	86.1	90.8	87.0	84.0
1976	87.9	89.2	94.1	86.3	104.1	87.3	90.1	96.9	92.9	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.4	98.2	101.8	94.0	102.1	99.5	97.9	101.5	100.9	102.5
1979	109.4	98.2	107.2	98.7	99.0	104.8	102.2	102.6	104.9	104.3
1980[e]	112.3	96.8	107.7	101.4	99.0	107.6	103.3	104.2	104.9	107.1
1981[e]	114.1	93.9	109.2	103.0	103.3	109.4	104.3	104.9	105.3	108.4

S.I.C. 2047 - Dog, Cat, and Other Pet Food
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	54.4	80.3	63.2	62.1	77.0	58.8	64.5	91.1	67.9	80.2
1964	54.6	78.1	63.8	62.5	77.6	59.0	64.6	91.4	67.7	80.7
1965	53.3	77.0	65.1	63.9	80.0	59.3	65.8	90.1	68.3	78.0
1966	53.8	76.8	66.4	68.7	88.5	62.1	69.1	89.9	69.2	77.7
1967	65.5	78.1	60.9	73.9	89.7	70.3	70.9	99.1	65.6	99.8
1968	67.4	76.5	70.0	71.1	88.5	69.6	71.5	97.3	71.8	93.9
1969	71.8	79.8	72.4	72.7	90.3	72.4	73.5	98.5	74.4	96.4
1970	74.2	79.8	75.2	75.2	83.6	74.8	75.7	98.7	76.5	97.0
1971	72.8	75.1	79.8	77.3	77.6	75.3	77.8	96.8	78.5	92.8
1972	74.5	85.2	84.6	79.7	81.8	77.3	81.7	94.7	84.8	87.8
1973	67.2	96.2	92.6	91.4	118.8	80.7	92.5	87.2	93.6	71.8
1974	69.7	90.7	99.3	88.1	91.5	79.8	91.5	87.2	97.0	71.9
1975	75.8	95.4	100.6	90.9	91.5	84.1	94.1	89.4	99.2	76.4
1976	87.1	96.4	100.0	96.5	102.4	92.3	97.5	94.6	99.1	87.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	107.4	103.7	97.9	93.3	101.7	100.5	101.2	104.7	101.6
1979	85.0	107.4	106.5	93.7	80.6	89.6	98.6	90.9	106.8	79.6
1980[e]	90.5	104.6	109.0	94.0	80.6	92.3	99.2	93.1	107.8	83.9
1981[e]	96.3	101.6	112.4	94.4	81.3	95.1	100.1	95.1	109.5	88.0

[e] Extrapolated.

TABLE VI

Four Digit S.I.C. Industries
Partial Productivity Indexes
(1977=100)

S.I.C. 2043 - Cereal Breakfast Foods

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	76.8	70.0	110.0	73.0
1964	79.8	72.1	105.8	76.1
1965	81.3	74.2	104.1	76.2
1966	81.3	75.1	106.0	75.1
1967	83.7	78.0	104.0	70.6
1968	87.9	79.7	107.5	67.8
1969	87.4	81.2	109.6	66.5
1970	91.9	83.4	108.9	71.5
1971	93.0	87.0	105.0	81.4
1972	96.6	91.4	110.7	77.4
1973	90.9	89.2	100.4	68.7
1974	81.0	79.8	91.6	83.2
1975	89.6	89.8	92.2	87.1
1976	97.9	92.8	101.2	83.9
1977	100.0	100.0	100.0	100.0
1978	101.2	97.7	105.8	97.4
1979	106.7	97.8	106.2	105.9
1980[e]	111.2	99.9	106.2	108.7
1981[e]	116.5	100.1	106.2	105.9

S.I.C. 2047 - Dog, Cat, and Other Pet Food

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	73.2	93.0	94.6	76.4
1964	75.6	92.6	94.5	76.1
1965	76.9	91.1	92.7	74.1
1966	80.9	93.6	90.4	70.2
1967	89.9	115.3	95.0	78.3
1968	90.9	99.3	97.9	78.6
1969	90.8	100.0	99.6	80.2
1970	93.7	99.4	99.5	89.4
1971	100.2	94.3	97.4	97.1
1972	90.7	91.4	97.1	94.5
1973	83.9	87.1	88.3	67.9
1974	88.0	80.4	90.6	87.2
1975	88.2	83.6	92.5	91.9
1976	95.7	92.3	95.6	90.1
1977	100.0	100.0	100.0	100.0
1978	94.7	98.1	103.9	109.0
1979	83.5	84.1	95.7	111.2
1980[e]	88.2	84.7	98.2	114.5
1981[e]	93.6	84.6	100.8	117.0

S.I.C. 2095 - Roasted Coffee

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	105.3	206.0	122.5	244.9
1964	95.0	180.3	121.1	192.3
1965	103.4	193.6	118.3	197.3
1966	108.4	196.5	121.4	208.1
1967	114.0	200.1	125.2	229.8
1968	112.4	175.2	125.1	226.7
1969	105.5	179.0	132.9	206.4
1970	103.0	160.3	129.2	195.3
1971	114.2	154.0	124.7	195.1
1972	120.4	149.9	127.6	161.4
1973	113.6	137.2	125.7	112.1
1974	115.2	136.3	126.1	133.6
1975	130.2	152.7	127.5	143.5
1976	127.1	133.9	115.4	133.9
1977	100.0	100.0	100.0	100.0
1978	133.1	141.8	111.9	153.3
1979	128.1	130.6	118.5	161.7
1980[e]	123.6	133.3	118.5	162.3
1981[e]	124.2	132.5	116.5	160.2

S.I.C. 2099 - Food Preparations, n.e.c.

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	74.1	98.2	95.6	120.4
1964	74.2	96.0	95.8	116.7
1965	77.7	98.4	93.5	111.4
1966	78.4	97.7	95.0	111.2
1967	86.1	102.7	92.2	111.7
1968	90.9	106.8	91.0	109.8
1969	90.0	108.9	93.4	106.5
1970	90.9	109.5	98.0	106.8
1971	97.2	106.9	99.9	111.8
1972	105.9	110.5	101.1	113.8
1973	102.5	112.7	104.0	111.6
1974	105.4	97.3	102.3	116.8
1975	102.7	98.9	98.0	114.1
1976	110.4	109.9	104.9	115.6
1977	100.0	100.0	100.0	100.0
1978	103.4	102.4	102.3	102.6
1979	108.6	101.0	99.6	99.8
1980[e]	125.2	113.5	89.0	111.5
1981[e]	115.4	100.4	98.5	98.6

[e] Extrapolated.

TABLE VI

S.I.C. 2095 - Roasted Coffee
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	305.1	153.7	78.6	132.2	66.1	161.9	120.0	134.9	93.5	326.4
1964	274.5	157.3	82.9	123.3	77.7	149.4	115.2	129.7	97.6	281.2
1965	264.5	146.7	78.3	128.2	76.9	151.6	116.8	129.8	91.9	287.9
1966	285.9	142.7	78.8	127.5	74.4	154.8	116.2	133.2	91.4	312.7
1967	324.7	144.9	82.5	132.0	71.9	165.2	120.3	137.3	94.9	342.2
1968	323.7	146.7	94.1	131.7	72.7	164.9	123.1	133.9	104.5	309.8
1969	360.6	156.8	92.5	124.6	80.2	165.5	118.4	139.8	105.2	342.8
1970	302.0	141.0	90.6	112.4	74.4	145.3	108.6	133.7	100.6	300.2
1971	291.8	131.3	97.4	120.3	76.9	149.9	115.1	130.3	104.1	280.4
1972	284.2	116.3	93.4	109.7	86.8	140.0	106.0	132.1	98.0	290.1
1973	258.1	115.9	96.0	104.7	117.4	131.6	103.3	127.4	99.9	258.3
1974	249.2	109.3	92.4	99.8	94.2	125.9	98.5	127.8	95.7	260.3
1975	283.2	107.5	91.6	109.7	97.5	139.9	105.1	133.2	94.8	298.8
1976	217.0	104.4	99.2	115.1	99.2	132.7	110.4	120.2	100.2	216.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	202.8	100.9	94.7	120.0	87.6	134.3	112.5	119.4	95.9	211.4
1979	222.0	99.1	97.2	107.1	78.5	127.0	104.1	122.0	97.6	227.4
1980[e]	222.4	103.1	95.6	107.5	78.5	127.4	104.2	122.3	97.1	229.2
1981[e]	211.3	101.3	94.9	108.0	78.5	125.8	104.2	120.7	96.2	219.7

S.I.C. 2099 - Food Preparations, n.e.c.
Output, Input and Productivity Indexes
(1977=100)

Total

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Factor Productivity
1963	55.9	78.9	59.6	61.2	48.6	58.5	63.4	92.3	66.4	84.3
1964	58.3	82.0	63.4	63.5	52.1	60.9	66.2	91.9	69.9	83.3
1965	60.0	83.1	65.6	69.0	57.9	64.5	70.1	92.0	71.7	83.7
1966	64.2	86.4	69.4	71.4	61.0	67.8	73.0	92.8	75.4	85.2
1967	69.0	87.6	73.4	81.8	67.5	75.4	80.1	94.1	78.4	88.0
1968	71.9	88.0	74.9	87.9	72.8	79.9	84.0	95.1	79.5	90.5
1969	77.1	92.3	76.3	89.0	78.1	83.1	85.8	96.9	82.0	94.1
1970	86.0	96.4	80.1	89.4	82.1	87.7	87.8	99.9	85.8	100.2
1971	90.2	92.6	84.3	90.2	80.6	90.1	88.8	101.4	87.2	103.4
1972	97.1	90.5	86.7	94.7	84.1	95.8	91.6	104.5	88.0	110.4
1973	106.6	99.9	90.8	98.5	91.7	102.4	96.4	106.2	94.0	113.4
1974	93.3	86.2	93.4	88.9	77.8	90.9	89.6	101.4	90.9	102.7
1975	92.2	91.5	95.0	95.9	82.4	94.0	94.8	99.1	93.8	98.4
1976	114.5	98.7	99.1	103.9	94.2	108.9	101.6	107.2	99.0	115.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	103.4	104.4	104.5	104.3	107.0	104.3	102.5	104.1	105.3
1979	110.0	101.7	109.4	110.8	110.6	110.4	109.0	101.3	106.7	103.1
1980[e]	110.0	100.4	110.8	141.3	112.8	125.8	126.0	99.9	107.1	102.7
1981[e]	111.9	98.5	113.3	115.5	115.4	113.8	112.2	101.3	108.1	103.5

[e] Extrapolated.

TABLE VI

S.I.C. 3079 - Miscellaneous Plastic Products
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1958	10.5	28.0	14.7	17.8	22.0	13.8	19.7	69.9	21.2	49.3
1959	12.7	31.7	16.3	21.6	25.8	16.7	22.9	73.0	23.9	53.4
1960	13.7	32.8	18.1	22.3	26.4	17.5	24.0	73.1	25.4	53.8
1961	15.7	33.6	20.1	23.9	27.2	19.4	25.5	76.0	26.8	58.5
1962	17.7	37.5	22.4	26.7	31.1	21.8	28.5	76.4	29.9	59.3
1963	20.5	40.2	25.0	29.7	32.6	24.6	31.2	78.9	32.5	63.3
1964	24.2	44.0	27.9	32.2	36.5	27.8	34.2	81.2	35.9	67.4
1965	29.2	49.1	32.1	37.4	43.0	32.9	39.1	84.1	40.5	72.2
1966	33.3	54.7	37.3	41.5	49.2	37.1	44.0	84.3	45.9	72.6
1967	40.5	59.9	42.8	45.9	55.2	43.0	48.9	88.1	51.2	79.1
1968	47.3	63.9	47.7	55.8	63.5	51.2	55.9	91.6	55.7	85.0
1969	53.6	68.3	53.0	59.9	70.6	56.5	60.4	93.5	60.5	88.5
1970	56.3	67.5	57.6	56.2	66.7	56.4	59.7	94.5	62.5	90.2
1971	61.2	67.0	61.7	61.0	68.0	61.2	62.9	97.4	64.3	95.1
1972	74.4	77.2	68.9	74.9	80.7	74.7	74.0	100.9	73.0	101.9
1973	86.9	85.0	77.6	86.2	88.7	86.7	83.7	103.6	81.3	106.9
1974	83.5	82.9	84.3	80.5	81.1	82.2	82.2	100.0	83.6	99.8
1975	68.5	74.1	85.6	69.5	79.3	69.1	75.2	91.9	80.0	85.7
1976	82.0	83.0	90.6	79.5	86.4	81.0	83.5	97.0	86.8	94.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	105.4	109.9	110.5	105.3	108.4	108.9	99.5	107.7	99.3
1979	105.0	106.4	116.4	106.7	96.7	105.6	109.1	96.8	111.5	94.2
1980[e]	101.0	99.5	120.1	101.8	102.2	101.4	106.1	95.5	109.9	91.9
1981[e]	110.0	102.9	126.1	110.9	111.2	110.4	112.9	97.8	114.6	95.9

[e] Extrapolted.

TABLE VI

Four Digit S.I.C. Industries
Partial Productivity Indexes
(1977=100)

S.I.C. 3079 - Miscellaneous Plastic Products

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1958	49.3	93.9	77.4	62.7
1959	52.8	102.7	77.4	64.7
1960	53.6	96.7	78.6	66.5
1961	57.7	96.1	81.0	71.2
1962	58.0	97.0	81.5	70.0
1963	61.3	98.6	82.9	75.6
1964	63.2	99.6	86.3	76.1
1965	67.1	102.7	88.0	76.5
1966	67.8	99.3	89.3	75.3
1967	71.9	100.7	93.8	78.0
1968	80.1	107.4	91.7	80.6
1969	82.8	106.6	94.4	80.1
1970	83.6	98.0	100.5	84.6
1971	91.4	99.3	100.3	90.1
1972	96.8	108.4	99.8	92.6
1973	101.9	111.6	100.5	97.7
1974	99.1	97.5	102.1	101.4
1975	93.2	80.7	99.4	87.1
1976	97.6	89.4	101.9	93.7
1977	100.0	100.0	100.0	100.0
1978	102.9	98.6	98.1	102.9
1979	99.2	90.7	98.9	109.2
1980[e]	101.9	84.4	99.5	99.2
1981[e]	107.2	87.5	99.5	99.2

[e] Extrapolated.

Table VII
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. **Private Business Economy**

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	99.7	100.3	98.7	101.6
II	100.0	101.2	98.0	103.3
III	99.6	100.9	97.2	103.8
IV	97.7	99.2	94.9	104.5
1982 I	97.0	98.9	93.5	105.9
1980	98.5	99.4	96.9	102.6
1981	98.9	100.4	95.9	104.8

Percent Change: (Annual Rate)

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	4.9	4.7	5.2	-0.5
II	1.3	3.5	-3.0	6.7
III	-1.8	-1.1	-3.3	2.2
IV	-7.5	-6.6	-9.2	2.9
1982 I	-2.6	-0.9	-5.7	5.1
1980	-1.2	0.0	-3.5	3.7
1981	0.4	1.0	-1.0	2.1

2. **Goods Producing** Industry

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	98.0	99.0	94.7	104.6
II	101.4	102.9	96.8	106.3
III	102.2	103.8	97.4	106.6
IV	98.6	101.6	92.5	108.8
1982 I	94.5	97.4	86.3	112.8
1980	98.4	99.5	94.8	105.0
1981	100.0	101.7	94.6	107.6

Percent Change: (Annual Rate)

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	-1.0	-0.6	-2.0	1.4
II	14.7	16.5	9.2	6.7
III	3.5	3.8	2.5	1.3
IV	-13.6	-11.8	-18.8	8.5
1982 I	-15.4	-12.3	-24.0	15.3
1980	-2.0	-0.6	-6.1	6.0
1981	1.6	2.2	-0.2	2.5

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Services Producing Industries

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	101.2	101.2	101.7	99.5
II	99.5	100.1	99.0	101.1
III	98.1	98.9	97.2	101.7
IV	97.4	98.2	96.7	101.6
1982 I	99.2	99.9	98.6	101.3
1980	98.9	99.2	98.5	100.7
1981	98.6	99.5	97.1	102.5
Percent Change: (Annual Rate)				
1981 I	9.1	8.3	10.3	-1.8
II	-6.6	-4.3	-10.2	6.5
III	-5.4	-4.4	-7.0	2.7
IV	-2.6	-2.9	-2.2	-0.6
1982 I	7.5	7.0	8.3	-1.2
1980	-0.4	0.3	-1.6	1.9
1981	-0.3	0.3	-1.4	1.8

4. Nonfinancial Corporate Business

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	103.9	103.4	105.7	97.9
II	104.1	104.0	104.7	99.3
III	103.7	103.8	103.7	100.1
IV	102.1	102.4	101.6	100.8
1982 I	101.7	102.3	100.4	101.9
1980	101.3	101.0	102.1	98.9
1981	103.3	103.5	102.7	100.7
Percent Change: (Annual Rate)				
1981 I	7.4	6.6	9.8	-2.9
II	0.6	2.2	-3.5	5.9
III	-1.4	-0.5	-3.8	3.4
IV	-6.2	-5.5	-7.9	2.6
1982 I	-1.5	-0.3	-4.5	4.4
1980	0.2	0.7	-1.1	1.7
1981	2.0	2.5	0.6	1.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

5. Farming

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981	I	100.4	103.1	98.1	105.1
	II	112.8	120.5	106.4	113.2
	III	120.7	127.2	115.2	110.5
	IV	124.3	128.6	120.6	106.6
1982	I	111.2	115.4	107.6	107.2
1980		107.4	111.3	103.3	107.8
1981		113.6	118.6	108.4	109.4
Percent Change: (Annual Rate)					
1981	I	7.9	11.4	4.7	6.4
	II	59.5	86.1	38.7	34.2
	III	31.1	24.5	37.0	-9.1
	IV	12.4	4.2	20.3	-13.4
1982	I	-35.9	-35.1	-36.6	2.3
1980		1.6	3.6	-0.1	3.8
1981		5.8	6.6	4.9	1.5

6. Manufacturing Industry

1981	I	101.3	103.9	94.6	109.8
	II	102.0	104.8	94.6	110.8
	III	101.9	105.0	93.7	112.1
	IV	98.2	102.0	88.4	115.4
1982	I	96.1	100.7	84.7	118.9
1980		99.0	101.4	92.7	109.4
1981		100.6	104.0	91.7	113.4
Percent Change: (Annual Rate)					
1981	I	3.1	3.1	3.2	-0.1
	II	2.6	3.5	0.0	3.5
	III	-0.4	0.9	-3.8	4.8
	IV	-13.8	-11.0	-20.7	12.2
1982	I	-8.1	-4.9	-15.7	12.8
1980		-2.4	-0.5	-7.2	7.3
1981		1.6	2.6	-1.1	3.7

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. **Nonfarm Nonmanufacturing Industry**

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	98.9	98.6	99.8	98.8
II	98.4	98.6	98.3	100.4
III	97.5	97.9	97.1	100.9
IV	96.4	96.8	95.9	101.0
1982 I	96.9	97.6	96.0	101.7
1980	97.7	97.7	97.8	100.0
1981	97.4	98.1	96.3	101.8
Percent Change: (Annual Rate)				
1981 I	5.2	4.9	5.7	-0.8
II	-1.9	0.3	-5.9	6.6
III	-3.6	-2.9	-4.8	2.1
IV	-4.6	-4.4	-4.9	0.4
1982 I	2.4	3.4	0.7	2.6
1980	-0.7	0.0	-2.0	2.2
1981	-0.3	0.4	-1.5	1.8

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, March 1, 1982 "Productivity and Costs" release; capital input is revised to reflect 1981 estimates by the Bureau of Economic Analysis, U.S. Department of Commerce, and 1975-1981 Farm land revisions published by the U.S. Department of Agriculture.

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	36.4	80.9	40.2	68.2	53.3	45.0	90.6	49.7
1948 II	37.3	80.5	40.6	68.1	54.8	46.4	92.0	50.4
1948 III	37.3	81.4	41.0	68.8	54.2	45.8	90.9	50.4
1948 IV	37.8	81.0	41.5	68.7	55.0	46.7	91.2	51.2
1949 I	36.9	79.8	41.3	67.9	54.3	46.2	89.2	51.8
1949 II	36.4	79.0	41.6	67.4	54.0	46.1	87.4	52.7
1949 III	36.6	77.7	41.9	66.6	55.0	47.1	87.4	54.0
1949 IV	36.1	76.5	42.2	65.9	54.8	47.2	85.7	55.1
1950 I	37.8	76.7	42.2	66.0	57.2	49.2	89.6	55.0
1950 II	39.3	78.5	42.6	67.4	58.3	50.1	92.2	54.3
1950 III	40.9	80.4	43.1	68.8	59.4	50.9	94.9	53.6
1950 IV	41.5	81.0	43.6	69.4	59.8	51.2	95.2	53.8
1951 I	41.5	81.8	43.7	70.0	59.3	50.8	95.0	53.4
1951 II	41.8	81.9	44.2	70.3	59.6	51.1	94.7	53.9
1951 III	42.5	81.0	44.7	69.7	60.9	52.5	95.2	55.1
1951 IV	42.8	81.3	45.0	70.1	61.1	52.6	95.0	55.4
1952 I	43.0	81.8	45.1	70.5	61.0	52.5	95.2	55.2
1952 II	43.1	80.7	45.5	69.8	61.8	53.5	94.9	56.4
1952 III	43.5	80.9	45.8	70.0	62.1	53.7	94.9	56.6
1952 IV	44.7	83.0	46.2	71.6	62.4	53.9	96.8	55.6
1953 I	45.5	83.4	46.2	71.9	63.2	54.5	98.3	55.4
1953 II	45.9	83.1	46.6	71.8	63.9	55.2	98.5	56.1
1953 III	45.6	82.3	46.9	71.4	63.9	55.4	97.0	57.1
1953 IV	44.8	80.9	47.2	70.5	63.6	55.4	95.0	58.4
1954 I	44.2	80.6	47.3	70.3	62.9	54.9	93.5	58.7
1954 II	44.0	79.4	47.6	69.6	63.2	55.4	92.5	59.9
1954 III	44.6	79.1	47.9	69.5	64.3	56.4	93.2	60.5
1954 IV	45.6	79.8	48.2	70.0	65.1	57.2	94.6	60.4
1955 I	46.9	81.1	48.6	71.1	66.0	57.9	96.5	60.0
1955 II	47.9	82.0	49.1	71.8	66.7	58.5	97.7	59.9
1955 III	48.7	83.3	49.5	72.9	66.8	58.4	98.3	59.4
1955 IV	49.1	84.4	49.9	73.8	66.6	58.2	98.4	59.1
1956 I	49.1	83.9	50.3	73.5	66.8	58.5	97.7	59.9
1956 II	49.4	84.3	50.6	73.9	66.8	58.6	97.5	60.1
1956 III	49.2	83.9	51.0	73.8	66.7	58.7	96.5	60.8
1956 IV	49.9	83.7	51.4	73.7	67.6	59.6	97.0	61.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.1	83.5	51.8	73.7	68.0	60.0	96.8	62.0
1957 II	50.0	83.0	52.1	73.5	68.1	60.3	96.0	62.8
1957 III	50.1	83.1	52.5	73.7	67.9	60.2	95.3	63.2
1957 IV	49.4	81.3	52.9	72.6	68.0	60.7	93.4	65.0
1958 I	48.2	79.0	53.0	71.1	67.8	61.0	90.9	67.1
1958 II	48.1	78.1	53.3	70.5	68.2	61.6	90.3	68.2
1958 III	49.3	78.8	53.5	71.1	69.3	62.5	92.0	68.0
1958 IV	50.9	80.0	53.9	72.0	70.7	63.7	94.6	67.3
1959 I	52.1	81.1	54.2	72.9	71.4	64.2	96.0	66.9
1959 II	53.4	83.0	54.7	74.3	71.9	64.3	97.7	65.8
1959 III	52.5	82.2	55.0	73.9	71.0	63.8	95.4	66.9
1959 IV	52.8	82.0	55.4	73.9	71.4	64.3	95.2	67.5
1960 I	54.0	82.1	55.9	74.1	73.0	65.9	96.7	68.1
1960 II	53.7	82.6	56.2	74.6	72.0	65.0	95.6	68.0
1960 III	53.5	82.6	56.6	74.7	71.6	64.7	94.6	68.5
1960 IV	52.9	81.6	56.8	74.1	71.4	64.8	93.1	69.7
1961 I	53.0	81.1	57.0	73.8	71.9	65.4	92.9	70.4
1961 II	54.0	80.3	57.4	73.4	73.6	67.3	94.1	71.5
1961 III	54.7	80.9	57.8	73.9	74.1	67.7	94.7	71.5
1961 IV	56.1	81.5	58.2	74.5	75.4	68.8	96.4	71.4
1962 I	56.8	82.4	58.6	75.2	75.6	69.0	97.0	71.1
1962 II	57.2	82.8	59.1	75.6	75.7	69.2	96.9	71.4
1962 III	57.8	82.3	59.6	75.4	76.6	70.2	97.0	72.4
1962 IV	58.1	81.7	60.0	75.2	77.2	71.1	96.8	73.4
1963 I	58.7	82.3	60.3	75.7	77.5	71.3	97.3	73.3
1963 II	59.7	82.8	60.8	76.2	78.4	72.1	98.2	73.5
1963 III	60.5	82.8	61.3	76.4	79.2	73.0	98.6	74.0
1963 IV	61.0	83.2	61.8	76.8	79.5	73.4	98.8	74.3
1964 I	62.2	83.2	62.2	76.9	80.9	74.8	100.0	74.8
1964 II	63.1	84.0	62.8	77.7	81.3	75.1	100.5	74.7
1964 III	64.1	84.3	63.4	78.1	82.1	76.0	101.1	75.2
1964 IV	64.8	84.9	64.0	78.7	82.4	76.3	101.4	75.3
1965 I	66.4	85.9	64.6	79.5	83.4	77.2	102.7	75.2
1965 II	67.4	87.0	65.2	80.5	83.7	77.5	103.3	75.0
1965 III	68.1	86.7	66.0	80.5	84.6	78.6	103.2	76.2
1965 IV	69.7	87.7	66.5	81.4	85.7	79.5	104.9	75.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios

(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	71.1	88.4	67.2	82.1	86.6	80.4	105.8	76.0
1966 II	71.3	88.8	67.9	82.6	86.3	80.2	104.9	76.5
1966 III	71.9	89.1	68.7	83.0	36.6	80.7	104.7	77.1
1966 IV	72.2	89.1	69.4	83.3	86.7	81.1	104.0	77.9
1967 I	72.2	88.9	70.1	83.4	86.6	81.2	102.9	78.9
1967 II	72.7	88.2	70.7	83.1	87.5	82.5	102.8	80.2
1967 III	73.5	88.8	71.4	83.8	87.8	82.7	103.0	80.4
1967 IV	74.5	89.3	72.1	84.3	88.4	83.5	103.4	80.7
1968 I	75.4	89.5	72.7	84.6	89.1	84.3	103.7	81.3
1968 II	76.5	90.1	73.4	85.3	89.7	84.9	104.2	81.5
1968 III	77.7	90.8	74.1	86.0	90.3	85.6	104.8	81.7
1968 IV	78.2	91.3	74.8	86.6	90.3	85.6	104.5	81.9
1969 I	79.0	92.8	75.6	87.8	89.9	85.1	104.5	81.4
1969 II	79.2	92.9	76.3	88.1	89.9	85.3	103.8	82.2
1969 III	79.5	93.2	77.1	88.6	89.7	85.2	103.1	82.7
1969 IV	79.0	92.7	77.8	88.5	89.2	85.2	101.5	83.9
1970 I	78.4	92.4	78.4	88.5	88.6	84.9	100.1	84.8
1970 II	78.5	91.5	79.0	88.1	89.1	85.8	99.3	86.3
1970 III	79.1	90.6	79.7	87.7	90.2	87.3	99.2	87.9
1970 IV	78.0	89.9	80.3	87.4	89.2	86.7	97.2	89.3
1971 I	80.0	90.3	80.9	87.9	91.0	88.6	98.9	89.6
1971 II	80.3	90.7	81.5	88.4	90.8	88.5	98.4	89.9
1971 III	81.1	90.2	82.2	88.2	91.9	89.9	98.7	91.1
1971 IV	82.1	91.4	82.8	89.3	92.0	89.8	99.2	90.5
1972 I	84.1	92.5	83.4	90.2	93.2	90.9	100.8	90.1
1972 II	85.6	93.0	84.1	90.8	94.2	91.9	101.7	90.4
1972 III	86.5	93.7	84.8	91.5	94.6	92.4	102.0	90.6
1972 IV	88.7	94.6	85.6	92.3	96.1	93.8	103.7	90.5
1973 I	91.6	95.9	86.4	93.5	98.0	95.5	106.0	90.1
1973 II	91.7	96.9	87.3	94.5	97.1	94.7	105.0	90.2
1973 III	91.9	97.4	88.3	95.1	96.5	94.3	104.1	90.6
1973 IV	92.6	97.9	89.2	95.8	96.7	94.6	103.9	91.1
1974 I	91.2	98.1	90.0	96.1	94.9	93.0	101.3	91.8
1974 II	91.0	97.8	90.8	96.2	94.6	93.1	100.2	92.8
1974 III	90.1	97.4	91.5	96.2	93.7	92.5	98.4	94.0
1974 IV	88.6	96.0	92.3	95.5	92.8	92.3	96.1	96.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	86.0	93.2	92.7	93.7	91.7	92.3	92.7	99.5
1975 II	87.5	92.4	93.2	93.3	93.7	94.7	93.9	100.9
1975 III	89.8	93.5	93.8	94.3	95.3	96.1	95.8	100.3
1975 IV	90.7	94.8	94.2	95.3	95.2	95.7	96.3	99.4
1976 I	93.3	95.9	94.8	96.3	96.9	97.3	98.3	98.9
1976 II	93.8	96.0	95.5	96.6	97.1	97.7	98.2	99.4
1976 III	94.4	96.3	96.2	97.0	97.3	98.0	98.1	99.9
1976 IV	95.0	96.8	96.8	97.5	97.4	98.1	98.1	100.0
1977 I	97.5	98.0	97.5	98.5	99.0	99.5	99.9	99.5
1977 II	99.3	99.9	98.4	99.8	99.6	99.4	101.0	98.4
1977 III	101.3	100.6	99.2	100.3	100.9	100.7	102.0	98.7
1977 IV	101.9	101.7	100.0	101.2	100.7	100.2	101.9	98.3
1978 I	102.3	102.7	100.9	102.1	100.2	99.6	101.4	98.2
1978 II	104.6	104.8	101.8	103.8	100.7	99.9	102.8	97.2
1978 III	105.3	105.4	102.7	104.5	100.7	100.0	102.6	97.5
1978 IV	106.7	106.8	103.6	105.8	100.8	99.9	103.0	97.0
1979 I	107.7	108.1	104.5	107.0	100.7	99.7	103.1	96.7
1979 II	107.1	107.4	105.5	106.9	100.2	99.7	101.5	98.2
1979 III	107.7	108.4	106.4	107.8	100.0	99.4	101.3	98.1
1979 IV	108.2	109.1	107.2	108.6	99.7	99.1	101.0	98.2
1980 I	108.7	109.2	107.9	108.8	99.9	99.5	100.7	98.8
1980 II	105.4	106.4	108.6	107.2	98.3	99.1	97.0	102.1
1980 III	105.7	106.3	109.3	107.3	98.4	99.4	96.7	102.8
1980 IV	107.5	108.4	110.2	109.1	98.5	99.2	97.5	101.7
1981 I	109.5	109.2	110.9	109.8	99.7	100.3	98.7	101.6
1981 II	109.5	108.2	111.7	109.4	100.0	101.2	98.0	103.3
1981 III	109.4	108.4	112.6	109.9	99.6	100.9	97.2	103.8
1981 IV	107.5	108.4	113.3	110.1	97.7	99.2	94.9	104.5
1982 I	106.4	107.6	113.9	109.7	97.0	98.9	93.5	105.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	51.9	91.9	63.3	85.2	60.9	56.5	81.9	68.9
1958 II	51.0	90.6	63.5	84.3	60.4	56.2	80.3	70.1
1958 III	53.0	91.2	63.7	84.8	62.4	58.1	83.2	69.9
1958 IV	55.1	93.2	64.0	86.4	63.8	59.1	86.1	68.7
1959 I	57.0	95.0	64.5	87.8	64.9	60.0	88.4	67.9
1959 II	58.9	98.8	64.9	90.8	64.9	59.7	90.8	65.7
1959 III	56.6	95.8	65.1	88.6	63.9	59.1	86.9	68.0
1959 IV	56.8	95.3	65.5	88.4	64.2	59.6	86.6	68.8
1960 I	59.7	95.1	66.0	88.3	67.5	62.8	90.4	69.5
1960 II	58.5	95.9	66.3	89.0	65.8	61.0	88.4	69.1
1960 III	57.3	95.7	66.5	88.9	64.5	59.9	86.2	69.5
1960 IV	56.3	92.9	66.6	86.9	64.8	60.6	84.5	71.7
1961 I	55.9	92.1	66.6	86.2	64.8	60.7	84.0	72.3
1961 II	57.6	90.7	66.9	85.2	67.6	63.5	86.1	73.8
1961 III	58.7	92.1	67.2	86.4	68.0	63.7	87.4	73.0
1961 IV	60.2	93.0	67.5	87.2	69.1	64.7	89.1	72.6
1962 I	60.6	94.2	67.7	88.1	68.8	64.3	89.6	71.8
1962 II	61.9	94.5	68.1	88.4	70.1	65.6	91.0	72.1
1962 III	62.2	93.9	68.5	88.1	70.6	66.2	90.7	73.0
1962 IV	62.7	93.3	68.9	87.7	71.6	67.3	91.1	73.9
1963 I	63.8	93.4	68.9	87.8	72.7	68.3	92.5	73.8
1963 II	66.0	94.5	69.4	88.8	74.4	69.9	95.1	73.4
1963 III	66.5	94.3	69.8	88.7	75.0	70.6	95.3	74.0
1963 IV	67.7	94.0	70.2	88.5	76.5	72.0	96.5	74.6
1964 I	68.4	92.8	70.3	87.7	78.0	73.7	97.2	75.8
1964 II	69.4	95.0	70.8	89.5	77.6	73.1	98.1	74.5
1964 III	70.3	95.3	71.3	89.8	78.3	73.8	98.7	74.8
1964 IV	70.8	95.6	71.9	90.2	78.5	74.1	98.5	75.2
1965 I	73.3	96.8	72.5	91.3	80.3	75.7	101.1	74.8
1965 II	74.5	98.2	72.9	92.5	80.5	75.8	102.1	74.3
1965 III	75.8	98.0	73.5	92.4	82.0	77.4	103.2	75.0
1965 IV	76.8	100.0	74.0	94.1	81.6	76.8	103.8	74.0
1966 I	78.9	101.2	74.6	95.1	82.9	77.9	105.7	73.7
1966 II	79.0	101.3	75.3	95.4	82.8	78.0	104.9	74.3
1966 III	79.3	101.4	76.1	95.6	83.0	78.3	104.3	75.1
1966 IV	79.0	101.6	76.8	95.9	82.4	77.8	102.9	75.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	78.3	100.9	77.6	95.6	81.9	77.6	100.9	76.9
1967 II	78.1	99.0	78.3	94.3	82.8	78.9	99.8	79.1
1967 III	78.9	100.1	78.9	95.3	82.7	78.8	100.0	78.8
1967 IV	81.0	100.4	79.5	95.8	84.6	80.7	102.0	79.1
1968 I	81.8	100.0	80.0	95.6	85.6	81.8	102.3	79.9
1968 II	82.7	100.8	80.5	96.3	85.8	82.0	102.7	79.9
1968 III	83.2	101.2	81.0	96.7	86.1	82.3	102.7	80.1
1968 IV	84.2	101.6	81.5	97.1	86.7	82.9	103.3	80.2
1969 I	85.3	103.8	82.1	99.0	86.2	82.1	103.9	79.1
1969 II	84.9	102.9	82.7	98.4	86.3	82.5	102.8	80.3
1969 III	85.5	102.8	83.2	98.5	86.8	83.1	102.8	80.9
1969 IV	84.3	101.7	83.6	97.7	86.3	82.9	100.9	82.2
1970 I	82.3	100.3	84.0	96.7	85.0	82.0	98.0	83.7
1970 II	81.6	98.8	84.4	95.7	85.2	82.5	96.6	85.4
1970 III	81.1	96.4	84.8	94.0	86.3	84.1	95.7	87.9
1970 IV	80.6	94.0	85.1	92.1	87.5	85.8	94.7	90.5
1971 I	82.8	94.4	85.4	92.5	89.5	87.7	96.9	90.5
1971 II	83.8	95.0	85.7	93.1	90.0	88.2	97.7	90.2
1971 III	84.0	94.0	85.9	92.3	90.9	89.3	97.7	91.4
1971 IV	85.2	95.5	86.1	93.6	91.0	89.2	98.9	90.2
1972 I	87.7	97.2	86.4	95.0	92.4	90.2	101.4	88.9
1972 II	89.3	97.8	86.8	95.5	93.5	91.3	102.8	88.7
1972 III	89.6	98.8	87.3	96.4	93.0	90.7	102.7	88.3
1972 IV	93.4	99.9	87.6	97.3	96.0	93.4	106.6	87.6
1973 I	97.0	101.4	88.1	98.6	98.3	95.6	110.1	86.9
1973 II	97.5	102.7	88.7	99.7	97.8	94.9	109.9	86.4
1973 III	97.7	103.1	89.4	100.2	97.5	94.8	109.3	86.7
1973 IV	97.6	104.0	90.2	101.1	96.6	93.8	108.3	86.7
1974 I	94.1	104.6	90.9	101.7	92.6	90.0	103.6	86.9
1974 II	94.4	102.4	91.6	100.1	94.3	92.2	103.0	89.5
1974 III	93.8	101.3	92.4	99.4	94.3	92.6	101.6	91.2
1974 IV	89.7	98.5	93.1	97.5	92.0	91.0	96.3	94.5
1975 I	83.3	92.9	93.7	93.3	89.2	89.6	88.9	100.8
1975 II	85.1	91.1	94.1	92.0	92.5	93.4	90.4	103.3
1975 III	89.7	92.8	94.5	93.4	96.0	96.7	94.9	101.8
1975 IV	91.0	94.0	94.9	94.5	96.4	96.8	95.9	101.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.2	95.7	95.4	95.9	97.2	97.4	97.7	99.7
1976 II	93.7	95.9	96.0	96.2	97.4	97.7	97.6	100.1
1976 III	94.1	95.9	96.6	96.3	97.7	98.1	97.4	100.7
1976 IV	96.0	96.3	97.2	96.7	99.2	99.7	98.8	100.9
1977 I	97.2	97.7	97.8	98.0	99.2	99.5	99.4	100.1
1977 II	99.6	100.3	98.5	100.0	99.6	99.4	101.1	98.3
1977 III	101.5	100.3	99.3	100.2	101.3	101.1	102.2	99.0
1977 IV	101.7	101.7	100.0	101.3	100.3	100.0	101.7	98.4
1978 I	101.7	102.1	100.8	101.8	99.9	99.6	100.9	98.7
1978 II	104.5	105.1	101.6	104.4	100.1	99.4	102.8	96.7
1978 III	106.2	106.1	102.5	105.3	100.8	100.0	103.6	96.6
1978 IV	107.5	107.5	103.3	106.6	100.9	100.0	104.1	96.1
1979 I	108.0	107.9	104.2	107.1	100.8	100.0	103.6	96.6
1979 II	107.8	107.1	105.2	106.7	101.0	100.6	102.5	98.2
1979 III	107.9	108.2	106.1	107.7	100.2	99.7	101.7	98.1
1979 IV	108.2	108.4	106.8	108.1	100.1	99.8	101.2	98.5
1980 I	108.9	107.0	107.7	107.2	101.6	101.8	101.1	100.7
1980 II	102.2	103.1	108.4	104.3	98.0	99.2	94.3	105.2
1980 III	99.2	102.1	108.8	103.7	95.7	97.2	91.2	106.6
1980 IV	104.1	104.9	109.3	106.0	98.2	99.2	95.2	104.2
1981 I	104.1	105.2	110.0	106.3	98.0	99.0	94.7	104.6
1981 II	106.9	104.0	110.5	105.5	101.4	102.9	96.8	106.3
1981 III	108.3	104.3	111.2	105.9	102.2	103.8	97.4	106.6
1981 IV	103.8	103.1	112.2	105.3	98.6	100.6	92.5	108.8
1982 I	97.1	99.7	112.4	102.7	94.5	97.4	86.3	112.8

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	45.6	69.6	47.7	61.5	74.1	65.5	95.6	68.5
1958 II	46.1	68.9	48.0	61.1	75.3	66.8	96.0	69.6
1958 III	46.6	69.8	48.3	61.8	75.4	66.8	96.6	69.2
1958 IV	48.0	70.4	48.6	62.3	77.0	68.1	98.7	69.0
1959 I	48.6	71.0	48.9	62.8	77.3	68.4	99.3	68.9
1959 II	49.5	71.6	49.4	63.3	78.2	69.2	100.3	69.0
1959 III	49.6	72.4	49.8	64.0	77.4	68.5	99.6	68.7
1959 IV	49.9	72.4	50.1	64.1	77.8	69.0	99.6	69.3
1960 I	50.1	72.6	50.6	64.4	77.7	69.0	99.0	69.7
1960 II	50.3	73.0	51.0	64.8	77.6	69.0	98.6	69.9
1960 III	50.8	73.2	51.4	65.1	78.0	69.4	98.8	70.3
1960 IV	50.5	73.4	51.8	65.4	77.3	68.8	97.6	70.6
1961 I	51.0	73.0	52.1	65.3	78.1	69.8	97.8	71.4
1961 II	51.5	72.7	52.5	65.2	78.9	70.8	98.0	72.2
1961 III	51.9	72.7	52.9	65.4	79.4	71.4	98.0	72.8
1961 IV	53.2	73.2	53.4	65.9	80.8	72.8	99.7	72.9
1962 I	54.1	73.7	53.8	66.4	81.5	73.4	100.5	73.1
1962 II	53.9	74.2	54.4	66.9	80.6	72.6	99.1	73.3
1962 III	54.7	73.8	54.9	66.9	81.8	74.0	99.6	74.3
1962 IV	54.8	73.3	55.4	66.7	82.1	74.7	98.9	75.5
1963 I	55.0	74.2	55.9	67.5	81.6	74.1	98.5	75.2
1963 II	55.2	74.3	56.4	67.7	81.6	74.4	98.0	75.9
1963 III	56.2	74.5	56.9	68.0	82.6	75.5	98.8	76.4
1963 IV	56.3	75.3	57.5	68.7	81.9	74.8	98.0	76.3
1964 I	57.9	76.1	58.0	69.5	83.3	76.1	99.8	76.2
1964 II	58.6	76.0	58.7	69.6	84.2	77.1	99.9	77.2
1964 III	59.7	76.3	59.3	70.1	85.1	78.1	100.6	77.7
1964 IV	60.6	77.1	59.8	70.8	85.6	78.6	101.2	77.6
1965 I	61.4	77.9	60.5	71.5	85.8	78.8	101.5	77.7
1965 II	62.4	78.7	61.2	72.3	86.2	79.2	101.9	77.7
1965 III	62.6	78.4	62.2	72.5	86.4	79.9	100.8	79.3
1965 IV	64.7	78.6	62.8	72.9	88.8	82.3	103.0	79.9
1966 I	65.5	79.0	63.3	73.3	89.4	82.9	103.5	80.1
1966 II	65.8	79.7	64.1	74.0	88.9	82.6	102.7	80.4
1966 III	66.6	80.1	64.8	74.6	89.3	83.2	102.8	80.9
1966 IV	67.4	80.0	65.6	74.8	90.1	84.3	102.8	82.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	67.8	80.1	66.2	75.1	90.3	84.7	102.5	82.6
1967 II	68.9	80.3	66.8	75.5	91.3	85.8	103.2	83.2
1967 III	69.7	80.6	67.5	75.9	91.8	86.5	103.2	83.7
1967 IV	69.9	81.1	68.2	76.5	91.4	86.2	102.4	84.1
1968 I	70.9	81.7	68.9	77.1	91.8	86.7	102.8	84.4
1968 II	72.1	82.3	69.8	77.8	92.7	87.6	103.4	84.8
1968 III	73.7	83.2	70.5	78.7	93.7	88.6	104.5	84.8
1968 IV	74.0	83.8	71.3	79.4	93.2	88.2	103.7	85.1
1969 I	74.4	84.7	72.1	80.2	92.8	87.9	103.2	85.2
1969 II	75.2	85.6	73.0	81.1	92.7	87.8	102.9	85.3
1969 III	75.2	86.2	73.9	81.9	91.8	87.2	101.7	85.8
1969 IV	75.1	86.1	74.8	82.1	91.5	87.2	100.5	86.8
1970 I	75.7	86.6	75.5	82.7	91.5	87.4	100.3	87.1
1970 II	76.4	86.2	76.3	82.8	92.3	88.6	100.1	88.5
1970 III	77.7	86.4	77.1	83.2	93.4	89.9	100.8	89.3
1970 IV	76.1	86.9	77.8	83.8	90.8	87.6	97.9	89.5
1971 I	78.0	87.3	78.5	84.3	92.5	89.4	99.3	90.0
1971 II	77.8	87.5	79.4	84.8	91.7	88.9	98.0	90.7
1971 III	79.0	87.3	80.2	85.0	93.0	90.5	98.5	91.9
1971 IV	79.9	88.4	81.0	85.9	93.0	90.4	98.7	91.6
1972 I	81.5	89.1	81.8	86.7	94.0	91.5	99.6	91.9
1972 II	82.9	89.5	82.7	87.3	95.0	92.6	100.3	92.4
1972 III	84.3	89.8	83.6	87.8	96.0	93.9	100.9	93.0
1972 IV	85.4	90.7	84.5	88.7	96.3	94.2	101.1	93.2
1973 I	87.8	91.9	85.5	89.8	97.7	95.6	102.7	93.1
1973 II	87.6	92.5	86.6	90.7	96.6	94.6	101.1	93.6
1973 III	87.7	93.3	87.7	91.6	95.8	94.0	100.0	94.0
1973 IV	88.8	93.4	88.7	92.0	96.5	95.1	100.2	95.0
1974 I	89.1	93.2	89.5	92.2	96.6	95.6	99.5	96.0
1974 II	88.6	94.4	90.4	93.3	95.0	93.8	98.0	95.7
1974 III	87.5	94.5	91.1	93.7	93.4	92.5	96.0	96.4
1974 IV	87.9	94.2	91.8	93.7	93.8	93.4	95.7	97.5
1975 I	87.9	93.3	92.2	93.3	94.2	94.2	95.3	98.9
1975 II	89.2	93.2	92.7	93.5	95.4	95.7	96.2	99.5
1975 III	89.9	94.0	93.4	94.2	95.5	95.7	96.3	99.4
1975 IV	90.4	95.2	93.8	95.2	95.0	95.0	96.4	98.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	95.9	94.5	95.9	97.3	97.2	98.7	98.5
1976 II	93.9	96.0	95.3	96.2	97.6	97.8	98.6	99.2
1976 III	94.6	96.5	96.0	96.8	97.7	98.0	98.6	99.4
1976 IV	94.2	97.1	96.6	97.4	96.8	97.0	97.5	99.5
1977 I	97.7	98.1	97.4	98.3	99.3	99.5	100.2	99.3
1977 II	99.1	99.6	98.3	99.5	99.7	99.5	100.9	98.6
1977 III	101.1	100.7	99.2	100.4	100.7	100.4	101.9	98.5
1977 IV	102.1	101.6	100.0	101.2	100.9	100.5	102.1	98.4
1978 I	102.7	103.0	100.9	102.4	100.3	99.7	101.8	98.0
1978 II	104.7	104.4	101.9	103.6	101.0	100.3	102.8	97.6
1978 III	104.7	104.7	102.8	104.2	100.5	100.0	101.9	98.2
1978 IV	106.0	106.2	103.7	105.5	100.5	99.8	102.2	97.7
1979 I	107.5	108.1	104.6	106.9	100.5	99.5	102.8	96.8
1979 II	106.6	107.6	105.6	107.0	99.6	99.1	100.9	98.2
1979 III	107.6	108.5	106.5	107.9	99.7	99.2	101.0	98.2
1979 IV	108.2	109.5	107.3	108.9	99.4	98.8	100.8	98.0
1980 I	108.5	110.7	108.0	109.8	98.8	98.1	100.5	97.6
1980 II	107.6	108.7	108.8	108.9	98.8	99.0	98.9	100.1
1980 III	110.2	109.3	109.5	109.6	100.6	100.9	100.6	100.3
1980 IV	109.9	110.8	110.7	111.0	99.0	99.2	99.2	99.9
1981 I	113.3	112.0	111.4	112.0	101.2	101.2	101.7	99.5
1981 II	111.3	111.2	112.4	111.9	99.5	100.1	99.0	101.1
1981 III	110.2	111.4	113.3	112.3	98.1	98.9	97.2	101.7
1981 IV	110.1	112.1	113.9	113.0	97.4	98.2	96.7	101.6
1982 I	113.0	113.2	114.6	113.9	99.2	99.9	98.6	101.3

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	28.4	61.3	31.7	53.3	53.3	46.4	89.8	51.6
1948 II	28.8	60.8	32.0	53.0	54.4	47.5	90.2	52.7
1948 III	28.7	61.3	32.3	53.5	53.7	46.9	88.9	52.7
1948 IV	29.0	60.6	32.6	53.1	54.5	47.8	88.8	53.8
1949 I	28.2	59.1	32.9	52.2	54.1	47.7	85.8	55.6
1949 II	27.5	57.6	33.1	51.1	53.9	47.8	83.3	57.4
1949 III	27.6	56.8	33.2	50.6	54.6	48.6	83.1	58.4
1949 IV	26.8	55.9	33.3	50.0	53.6	47.9	80.5	59.5
1950 I	28.4	56.8	33.5	50.7	56.1	50.0	84.8	58.9
1950 II	30.2	59.1	33.8	52.4	57.7	51.2	89.6	57.1
1950 III	32.0	61.6	34.1	54.2	59.0	52.0	93.9	55.3
1950 IV	33.1	62.9	34.6	55.3	59.9	52.6	95.9	54.9
1951 I	33.5	63.9	35.0	56.2	59.5	52.3	95.7	54.7
1951 II	33.8	64.3	35.5	56.6	59.6	52.5	95.1	55.2
1951 III	33.9	63.7	36.0	56.3	60.2	53.3	94.4	56.4
1951 IV	34.2	63.7	36.3	56.4	60.6	53.6	94.2	56.9
1952 I	34.2	64.6	36.6	57.1	59.9	53.0	93.4	56.7
1952 II	33.8	63.9	36.9	56.7	59.5	52.9	91.5	57.8
1952 III	34.0	64.3	37.2	57.2	59.5	52.9	91.5	57.8
1952 IV	35.8	66.4	37.5	58.7	61.0	53.9	95.5	56.5
1953 I	36.7	67.2	37.8	59.4	61.7	54.6	96.9	56.3
1953 II	37.1	67.5	38.2	59.7	62.2	55.0	97.2	56.6
1953 III	36.9	66.6	38.5	59.2	62.4	55.4	95.8	57.8
1953 IV	35.5	65.2	38.7	58.3	61.0	54.4	91.8	59.3
1954 I	35.1	63.7	38.9	57.2	61.4	55.1	90.2	61.1
1954 II	35.0	62.8	39.1	56.7	61.8	55.7	89.4	62.3
1954 III	35.4	62.3	39.4	56.4	62.8	56.8	89.8	63.2
1954 IV	36.4	63.1	39.6	57.0	63.8	57.7	91.9	62.7
1955 I	38.2	64.4	39.9	58.0	65.8	59.3	95.7	62.0
1955 II	39.4	65.7	40.3	59.1	66.7	59.9	97.8	61.2
1955 III	39.9	66.5	40.7	59.8	66.7	59.9	97.9	61.2
1955 IV	40.4	67.4	41.2	60.5	66.7	60.0	98.0	61.2
1956 I	40.4	67.5	41.6	60.8	66.5	59.8	97.0	61.7
1956 II	40.5	67.5	42.1	60.9	66.5	60.0	96.3	62.3
1956 III	40.3	67.0	42.5	60.7	66.4	60.1	94.7	63.4
1956 IV	40.9	67.9	42.9	61.4	66.7	60.3	95.5	63.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	41.4	67.8	43.2	61.4	67.4	61.1	95.7	63.8
1957 II	41.4	67.2	43.6	61.2	67.7	61.6	95.0	64.9
1957 III	41.2	66.8	44.0	61.0	67.6	61.7	93.7	65.9
1957 IV	40.3	65.2	44.2	59.9	67.2	61.7	91.0	67.9
1958 I	38.5	63.3	44.4	58.6	65.7	60.8	86.7	70.1
1958 II	38.1	61.8	44.5	57.6	66.1	61.6	85.6	72.0
1958 III	39.3	62.6	44.7	58.2	67.5	62.7	87.9	71.3
1958 IV	40.9	63.8	44.9	59.1	69.3	64.2	91.2	70.4
1959 I	42.8	66.0	45.1	60.7	70.4	64.8	94.8	68.4
1959 II	44.3	67.5	45.5	61.9	71.5	65.6	97.3	67.5
1959 III	43.3	66.9	45.8	61.6	70.3	64.7	94.6	68.4
1959 IV	43.6	66.8	46.1	61.6	70.7	65.2	94.5	69.0
1960 I	45.5	68.5	46.6	63.0	72.2	66.4	97.6	68.0
1960 II	45.2	68.2	47.0	62.9	71.9	66.3	96.3	68.8
1960 III	44.5	67.6	47.3	62.5	71.3	65.9	94.3	70.0
1960 IV	44.2	66.2	47.4	61.6	71.8	66.8	93.2	71.6
1961 I	44.2	66.1	47.7	61.5	71.9	66.9	92.8	72.1
1961 II	45.3	66.4	48.0	61.9	73.2	68.2	94.5	72.2
1961 III	46.3	67.2	48.3	62.5	74.1	69.0	96.0	71.9
1961 IV	48.0	68.0	48.6	63.2	76.0	70.6	98.8	71.5
1962 I	49.1	68.9	49.4	64.1	76.6	71.3	99.4	71.7
1962 II	49.6	69.8	50.1	65.0	76.4	71.0	98.9	71.8
1962 III	50.4	69.9	50.8	65.2	77.3	72.1	99.2	72.7
1962 IV	51.0	69.7	51.3	65.2	78.2	73.2	99.4	73.6
1963 I	51.8	70.5	51.8	65.9	78.5	73.4	99.9	73.5
1963 II	53.1	71.2	52.4	66.6	79.7	74.5	101.3	73.6
1963 III	54.0	71.5	53.2	67.0	80.6	75.5	101.6	74.3
1963 IV	54.5	71.7	53.7	67.4	80.9	76.0	101.5	74.9
1964 I	55.9	72.5	54.4	68.1	82.0	77.1	102.8	75.0
1964 II	56.7	73.3	55.1	68.9	82.2	77.3	102.8	75.2
1964 III	57.5	73.8	55.9	69.5	82.8	77.9	102.9	75.7
1964 IV	58.1	74.5	56.7	70.3	82.6	77.9	102.4	76.1
1965 I	60.3	76.4	57.7	71.9	83.9	79.0	104.5	75.6
1965 II	61.5	77.1	58.6	72.7	84.6	79.8	104.8	76.1
1965 III	62.2	77.7	59.8	73.4	84.7	80.0	104.0	76.9
1965 IV	64.0	78.9	60.6	74.6	85.8	81.1	105.6	76.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	65.5	80.9	61.8	76.3	85.8	81.0	106.0	76.5
1966 II	66.2	81.7	63.3	77.3	85.6	81.1	104.7	77.5
1966 III	66.8	82.2	64.7	78.1	85.5	81.2	103.3	78.7
1966 IV	67.2	82.5	66.4	78.9	85.2	81.4	101.2	80.4
1967 I	67.1	82.9	67.7	79.5	84.4	80.9	99.0	81.8
1967 II	67.4	82.4	68.6	79.4	84.9	81.9	98.3	83.3
1967 III	68.2	82.8	69.7	80.0	85.2	82.3	97.8	84.1
1967 IV	69.2	83.3	70.7	80.7	85.8	83.0	97.9	84.8
1968 I	70.4	84.4	71.6	81.7	86.2	83.5	98.4	84.8
1968 II	71.9	85.1	72.8	82.6	87.0	84.4	98.7	85.5
1968 III	73.2	85.9	73.7	83.4	87.7	85.2	99.3	85.8
1968 IV	74.3	86.4	74.5	84.0	88.4	86.0	99.7	86.2
1969 I	74.9	88.1	75.5	85.5	87.5	85.0	99.2	85.7
1969 II	75.5	88.8	76.7	86.4	87.4	85.0	98.5	86.4
1969 III	76.1	89.3	77.7	87.0	87.4	85.1	97.9	86.9
1969 IV	75.9	89.2	78.4	87.2	87.1	85.1	96.8	87.9
1970 I	75.0	89.6	79.2	87.7	85.5	83.7	94.7	88.4
1970 II	75.1	88.4	79.9	87.0	86.3	84.9	93.9	90.4
1970 III	75.7	87.6	80.6	86.5	87.5	86.5	94.0	92.0
1970 IV	74.4	86.1	81.1	85.6	86.9	86.4	91.7	94.2
1971 I	77.1	87.4	81.5	86.6	89.0	88.2	94.6	93.2
1971 II	77.8	87.6	82.2	87.0	89.4	88.8	94.6	93.8
1971 III	78.7	87.4	82.8	87.0	90.5	90.1	95.0	94.8
1971 IV	80.2	88.3	83.4	87.8	91.3	90.8	96.2	94.4
1972 I	82.4	90.7	84.2	89.8	91.8	90.9	97.9	92.8
1972 II	84.0	91.8	85.2	90.9	92.4	91.5	98.6	92.8
1972 III	85.2	92.3	86.3	91.5	93.1	92.4	98.8	93.5
1972 IV	87.7	93.8	86.8	92.8	94.5	93.6	101.1	92.5
1973 I	91.0	95.8	87.6	94.5	96.3	95.0	103.9	91.4
1973 II	91.5	96.7	88.3	95.4	96.0	94.6	103.6	91.3
1973 III	91.9	97.1	89.3	95.9	95.8	94.6	102.9	91.9
1973 IV	92.0	97.9	90.3	96.8	95.1	94.0	101.9	92.2
1974 I	90.6	98.0	90.4	96.9	93.5	92.4	100.2	92.2
1974 II	89.4	97.6	91.0	96.8	92.4	91.6	98.2	93.2
1974 III	88.1	97.4	91.4	96.7	91.0	90.4	96.3	93.8
1974 IV	86.5	95.4	92.5	95.5	90.6	90.7	93.5	97.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	83.9	92.0	92.5	93.0	90.2	91.2	90.7	100.6
1975 II	85.5	90.8	92.5	92.1	92.9	94.2	92.5	101.8
1975 III	88.4	92.0	92.5	93.0	95.0	96.1	95.5	100.6
1975 IV	89.7	93.2	92.7	93.9	95.5	96.3	96.7	99.5
1976 I	92.4	95.2	93.6	95.7	96.6	97.1	98.7	98.3
1976 II	92.9	95.6	94.6	96.2	96.6	97.2	98.2	99.0
1976 III	93.7	95.9	95.3	96.7	97.0	97.7	98.3	99.4
1976 IV	94.2	96.5	95.8	97.2	96.9	97.6	98.3	99.3
1977 I	96.9	97.9	96.8	98.4	98.4	98.9	100.1	98.8
1977 II	99.3	99.6	98.0	99.6	99.7	99.7	101.4	98.4
1977 III	101.4	100.5	99.3	100.4	101.0	100.9	102.1	98.9
1977 IV	102.4	101.6	100.0	101.3	101.1	100.8	102.4	98.4
1978 I	102.9	102.6	101.0	102.3	100.5	100.2	101.8	98.5
1978 II	105.9	105.1	102.3	104.4	101.4	100.8	103.5	97.4
1978 III	106.4	105.9	103.3	105.3	101.0	100.4	103.0	97.5
1978 IV	108.0	107.5	103.9	106.6	101.3	100.5	104.0	96.7
1979 I	109.5	108.9	104.6	107.8	101.5	100.6	104.6	96.1
1979 II	109.0	108.3	105.9	107.7	101.2	100.7	102.9	97.8
1979 III	109.4	108.9	106.1	108.3	101.1	100.5	103.2	97.4
1979 IV	109.3	109.4	105.9	108.6	100.7	99.9	103.2	96.7
1980 I	109.9	109.6	106.2	108.8	101.0	100.2	103.5	96.8
1980 II	106.8	106.7	106.9	106.8	100.0	100.1	99.9	100.2
1980 III	107.7	105.8	106.7	106.1	101.5	101.8	100.9	100.8
1980 IV	109.7	107.8	106.3	107.5	102.1	101.8	103.2	98.6
1981 I	112.8	109.1	106.7	108.5	103.9	103.4	105.7	97.9
1981 II	112.8	108.5	107.7	108.4	104.1	104.0	104.7	99.3
1981 III	112.8	108.6	108.8	108.8	103.7	103.8	103.7	100.1
1981 IV	110.5	108.0	108.8	108.3	102.1	102.4	101.6	100.8
1982 I	109.2	106.8	108.8	107.4	101.7	102.3	100.4	101.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	69.7	310.7	68.2	207.2	33.6	22.4	102.2	21.9
1948 II	77.8	306.2	69.2	205.0	38.0	25.4	112.5	22.6
1948 III	74.5	314.8	70.6	210.6	35.4	23.7	105.6	22.4
1948 IV	80.9	317.8	72.0	212.9	38.0	25.5	112.3	22.7
1949 I	72.3	314.2	69.2	209.6	34.5	23.0	104.4	22.0
1949 II	73.4	323.9	70.4	215.7	34.0	22.7	104.2	21.7
1949 III	75.2	309.5	71.4	207.9	36.2	24.3	105.4	23.1
1949 IV	76.7	291.4	72.4	198.0	38.7	26.3	105.9	24.9
1950 I	81.2	286.9	70.4	194.6	41.7	28.3	115.3	24.5
1950 II	78.1	288.8	71.8	196.3	39.8	27.1	108.9	24.8
1950 III	76.7	284.7	73.3	194.6	39.4	26.9	104.6	25.7
1950 IV	78.0	285.4	74.4	195.5	39.9	27.3	104.8	26.1
1951 I	69.6	276.8	72.8	189.9	36.7	25.2	95.7	26.3
1951 II	73.3	270.0	73.7	186.4	39.3	27.1	99.4	27.3
1951 III	79.0	266.8	74.7	185.0	42.7	29.6	105.7	28.0
1951 IV	76.5	272.0	75.7	188.4	40.6	28.1	101.1	27.8
1952 I	74.1	270.6	74.4	187.0	39.6	27.4	99.6	27.5
1952 II	76.9	256.0	75.5	179.2	42.9	30.0	101.9	29.5
1952 III	80.8	252.1	76.0	177.2	45.6	32.0	106.2	30.2
1952 IV	74.3	253.9	77.1	178.7	41.6	29.2	96.4	30.4
1953 I	78.9	248.3	75.7	174.9	45.1	31.8	104.2	30.5
1953 II	80.6	238.4	76.2	169.5	47.5	33.8	105.8	32.0
1953 III	79.8	237.9	76.9	169.5	47.1	33.6	103.8	32.3
1953 IV	82.6	230.7	77.5	165.7	49.8	35.8	106.5	33.6
1954 I	80.7	242.7	76.5	172.1	46.9	33.2	105.5	31.5
1954 II	79.0	231.4	76.8	165.8	47.7	34.1	102.9	33.2
1954 III	84.5	231.1	77.5	165.9	50.9	36.5	109.0	33.5
1954 IV	85.4	222.9	78.3	161.6	52.8	38.3	109.1	35.1
1955 I	82.8	228.3	79.4	165.2	50.2	36.3	104.3	34.8
1955 II	83.6	229.3	79.9	165.9	50.4	36.4	104.6	34.8
1955 III	85.2	242.1	80.3	173.4	49.2	35.2	106.2	33.1
1955 IV	88.0	243.6	80.5	174.4	50.4	36.1	109.2	33.1
1956 I	86.7	225.9	80.6	164.3	52.8	38.4	107.6	35.7
1956 II	80.4	230.0	80.5	166.6	48.3	35.0	99.9	35.0
1956 III	83.2	229.2	80.8	166.3	50.0	36.3	103.0	35.2
1956 IV	84.5	212.9	81.0	157.1	53.8	39.7	104.3	38.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	82.7	209.8	81.4	155.5	53.2	39.4	101.6	38.8
1957 II	81.7	203.9	81.2	152.0	53.8	40.1	100.7	39.8
1957 III	80.3	210.2	81.5	155.8	51.5	38.2	98.5	38.8
1957 IV	81.2	202.5	82.1	151.6	53.5	40.1	98.8	40.6
1958 I	85.4	189.7	81.7	144.2	59.2	45.0	104.5	43.1
1958 II	83.8	194.7	82.2	147.2	56.9	43.1	102.0	42.2
1958 III	84.8	189.6	82.4	144.4	58.8	44.8	103.0	43.5
1958 IV	86.2	192.0	82.8	146.0	59.0	44.9	104.1	43.1
1959 I	83.4	189.5	83.6	144.8	57.6	44.0	99.8	44.1
1959 II	80.2	203.2	83.9	152.8	52.5	39.5	95.6	41.3
1959 III	77.0	188.7	84.1	144.6	53.3	40.8	91.6	44.6
1959 IV	81.4	186.1	84.4	143.3	56.8	43.7	96.4	45.4
1960 I	81.3	172.9	85.1	135.7	59.9	47.0	95.6	49.2
1960 II	83.8	185.1	85.0	143.0	58.6	45.3	98.6	45.9
1960 III	87.6	193.3	85.2	147.8	59.2	45.3	102.9	44.1
1960 IV	87.5	189.0	85.3	145.4	60.2	46.3	102.6	45.1
1961 I	87.0	187.5	84.7	144.2	60.3	46.4	102.7	45.2
1961 II	84.6	169.2	85.0	133.6	63.3	50.0	99.4	50.3
1961 III	83.3	173.1	85.2	135.9	61.3	48.1	97.8	49.2
1961 IV	83.5	170.8	85.3	134.6	62.0	48.9	97.8	50.0
1962 I	84.0	181.8	84.8	140.9	59.6	46.2	99.0	46.6
1962 II	85.4	170.5	85.2	134.4	63.6	50.1	100.3	49.9
1962 III	84.0	164.4	85.5	130.9	64.2	51.1	98.3	52.0
1962 IV	83.3	163.6	86.0	130.6	63.8	50.9	96.9	52.5
1963 I	86.4	165.6	85.3	131.5	65.7	52.2	101.3	51.5
1963 II	88.2	165.8	85.9	131.9	66.8	53.2	102.6	51.8
1963 III	86.7	161.0	86.3	129.2	67.1	53.8	100.5	53.6
1963 IV	86.3	158.2	86.7	127.7	67.6	54.6	99.6	54.8
1964 I	83.0	148.3	86.2	121.7	68.2	55.9	96.2	58.2
1964 II	84.0	157.4	86.6	127.2	66.0	53.4	97.0	55.0
1964 III	86.2	156.8	87.1	127.1	67.8	55.0	99.0	55.5
1964 IV	86.1	151.2	87.5	123.9	69.4	56.9	98.3	57.9
1965 I	88.4	147.3	88.0	121.8	72.6	60.0	100.5	59.8
1965 II	87.1	155.2	88.1	126.5	68.8	56.1	98.9	56.8
1965 III	90.3	146.9	88.1	121.7	74.3	61.5	102.5	60.0
1965 IV	85.7	149.0	88.2	122.9	69.7	57.5	97.2	59.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	87.7	141.8	88.3	118.7	73.9	61.9	99.4	62.3
1966 II	82.9	136.8	88.4	115.8	71.6	60.6	93.7	64.7
1966 III	79.6	132.2	88.5	113.1	70.4	60.2	89.9	67.0
1966 IV	81.7	132.5	88.6	113.4	72.1	61.6	92.2	66.9
1967 I	85.7	133.5	88.8	114.0	75.1	64.2	96.4	66.6
1967 II	85.0	125.6	89.0	109.4	77.7	67.7	95.5	70.9
1967 III	88.3	132.6	89.2	113.6	77.7	66.6	98.9	67.3
1967 IV	90.0	131.9	89.4	113.3	79.4	68.2	100.6	67.8
1968 I	86.5	130.5	89.5	112.5	76.9	66.3	96.6	68.6
1968 II	82.0	128.8	89.7	111.6	73.5	63.7	91.5	69.6
1968 III	86.5	126.9	89.9	110.5	78.3	68.1	96.3	70.8
1968 IV	87.0	126.5	90.1	110.3	78.9	68.8	96.6	71.2
1969 I	91.1	138.1	90.3	117.3	77.6	65.9	100.9	65.4
1969 II	85.9	123.7	90.4	108.9	78.9	69.5	95.0	73.1
1969 III	87.1	119.7	90.5	106.5	81.7	72.7	96.2	75.6
1969 IV	85.3	115.7	90.6	104.2	81.9	73.7	94.2	78.3
1970 I	88.5	114.5	90.7	103.6	85.4	77.3	97.6	79.2
1970 II	93.3	117.5	90.9	105.3	88.6	79.4	102.6	77.4
1970 III	90.1	112.6	91.2	103.0	87.5	80.0	98.8	80.9
1970 IV	96.5	109.8	91.4	101.7	94.9	87.9	105.6	83.2
1971 I	101.5	109.0	91.8	101.5	100.1	93.1	110.6	84.2
1971 II	96.1	112.1	92.1	103.2	93.1	85.7	104.4	82.1
1971 III	94.4	107.2	92.3	100.8	93.6	88.0	102.2	86.1
1971 IV	97.5	110.4	92.5	102.5	95.1	88.3	105.5	83.8
1972 I	103.0	112.7	92.6	103.7	99.3	91.4	111.3	82.1
1972 II	101.3	108.8	92.6	101.8	99.5	93.1	109.4	85.1
1972 III	84.7	113.1	92.7	104.0	81.4	74.8	91.3	82.0
1972 IV	91.9	111.2	92.9	103.1	89.1	82.6	98.9	83.5
1973 I	97.8	108.7	93.0	101.9	95.9	89.9	105.1	85.6
1973 II	93.0	108.6	93.6	102.1	91.1	85.7	99.4	86.2
1973 III	87.3	108.5	94.1	102.4	85.3	80.5	92.7	86.7
1973 IV	100.2	109.3	94.7	103.1	97.2	91.7	105.8	86.7
1974 I	89.1	117.9	95.0	107.5	82.8	75.6	93.8	80.5
1974 II	99.8	109.1	95.3	103.3	96.6	91.5	104.8	87.3
1974 III	95.7	104.3	95.6	101.0	94.7	91.7	100.1	91.6
1974 IV	96.6	106.8	95.8	102.4	94.4	90.5	100.9	89.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	95.4	104.4	96.4	101.5	94.0	91.4	99.0	92.3
1975 II	103.3	104.0	97.0	101.5	101.7	99.4	106.6	93.3
1975 III	105.6	107.5	97.6	103.6	101.9	98.3	108.2	90.8
1975 IV	100.9	103.5	98.2	101.9	99.0	97.5	102.8	94.9
1976 I	100.7	99.1	98.4	99.9	100.9	101.6	102.3	99.3
1976 II	93.6	102.8	98.5	101.8	92.0	91.0	95.0	95.8
1976 III	93.8	100.8	98.8	100.9	93.0	93.1	95.0	98.0
1976 IV	98.8	97.8	98.9	99.4	99.4	101.1	100.0	101.1
1977 I	100.4	97.9	99.1	99.4	101.0	102.6	101.3	101.2
1977 II	95.2	102.7	99.4	101.6	93.7	92.7	95.8	96.7
1977 III	105.2	97.0	99.6	98.6	106.7	108.5	105.6	102.7
1977 IV	99.2	99.9	100.0	100.1	99.0	99.3	99.2	100.1
1978 I	101.7	101.7	100.3	101.1	100.6	100.1	101.4	98.7
1978 II	95.4	100.3	100.7	100.6	94.8	95.1	94.8	100.4
1978 III	100.3	100.9	101.1	101.2	99.2	99.4	99.2	100.2
1978 IV	101.5	101.4	101.5	101.5	99.9	100.1	100.0	100.1
1979 I	101.3	101.3	101.8	101.6	99.6	100.0	99.5	100.5
1979 II	107.8	96.4	102.1	99.4	108.5	111.8	105.6	105.9
1979 III	107.2	96.6	102.6	99.7	107.5	111.0	104.6	106.2
1979 IV	109.4	102.7	103.0	103.0	106.2	106.5	106.2	100.2
1980 I	113.4	97.8	103.3	100.7	112.6	115.9	109.7	105.6
1980 II	115.8	92.9	103.6	98.4	117.7	124.7	111.8	111.5
1980 III	100.8	95.2	103.6	99.5	101.2	105.9	97.3	108.8
1980 IV	101.2	100.8	104.4	102.7	98.5	100.4	97.0	103.5
1981 I	102.5	99.4	104.5	102.1	100.4	103.1	98.1	105.1
1981 II	111.6	92.6	104.8	98.9	112.8	120.5	106.4	113.2
1981 III	121.1	95.2	105.2	100.3	120.7	127.2	115.2	110.5
1981 IV	127.3	99.0	105.6	102.4	124.3	128.6	120.6	106.6
1982 I	113.5	98.4	105.5	102.1	111.2	115.4	107.6	107.2

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.3	80.6	37.7	69.5	50.8	43.8	93.6	46.8
1948 II	35.7	79.4	38.3	68.8	52.0	45.0	93.3	48.2
1948 III	36.3	79.4	38.8	69.0	52.6	45.7	93.5	48.8
1948 IV	36.1	78.3	39.2	68.3	52.9	46.1	92.2	50.0
1949 I	35.0	75.2	39.6	66.1	53.0	46.6	88.5	52.7
1949 II	33.8	71.8	39.7	63.7	53.0	47.0	85.0	55.3
1949 III	34.0	71.6	39.8	63.6	53.5	47.5	85.5	55.6
1949 IV	33.1	70.7	39.8	62.9	52.6	46.9	83.2	56.3
1950 I	34.6	72.9	40.1	64.6	53.6	47.5	86.4	55.0
1950 II	37.6	76.2	40.4	67.1	56.0	49.3	93.1	52.9
1950 III	40.8	80.7	40.7	70.4	58.0	50.6	100.4	50.4
1950 IV	41.7	82.9	41.3	72.2	57.8	50.3	101.0	49.9
1951 I	43.3	84.7	41.9	73.7	58.7	51.0	103.1	49.5
1951 II	43.7	85.3	42.9	74.4	58.7	51.2	101.8	50.3
1951 III	42.6	83.6	44.0	73.5	57.9	50.9	96.7	52.6
1951 IV	42.9	83.3	44.6	73.5	58.4	51.5	96.1	53.6
1952 I	43.7	84.6	45.4	74.6	58.6	51.7	96.4	53.6
1952 II	43.1	83.6	45.7	74.0	58.2	51.5	94.3	54.6
1952 III	44.0	84.5	46.0	74.8	58.8	52.0	95.5	54.5
1952 IV	47.3	89.1	46.5	78.2	60.5	53.1	101.8	52.2
1953 I	48.2	91.0	47.0	79.7	60.5	53.0	102.7	51.6
1953 II	48.4	91.6	47.5	80.3	60.2	52.8	101.9	51.8
1953 III	48.0	90.0	47.9	79.3	60.6	53.4	100.3	53.2
1953 IV	45.6	86.6	48.1	76.9	59.4	52.7	94.9	55.6
1954 I	44.0	83.7	48.3	74.9	58.8	52.6	91.2	57.6
1954 II	43.8	81.9	48.4	73.6	59.6	53.5	90.6	59.1
1954 III	43.8	80.7	48.5	72.8	60.2	54.3	90.3	60.1
1954 IV	45.0	82.1	48.9	73.9	61.0	54.9	92.1	59.6
1955 I	47.2	84.3	49.2	75.5	62.5	56.0	95.9	58.4
1955 II	49.1	86.6	49.7	77.4	63.5	56.7	98.8	57.4
1955 III	49.3	87.0	50.3	77.8	63.4	56.7	98.1	57.8
1955 IV	50.0	88.6	50.9	79.2	63.2	56.5	98.4	57.4
1956 I	49.6	88.3	51.5	79.2	62.6	56.1	96.2	58.3
1956 II	49.2	87.9	52.2	79.0	62.3	56.0	94.3	59.4
1956 III	48.2	86.8	52.8	78.4	61.5	55.5	91.4	60.8
1956 IV	50.1	88.6	53.3	79.9	62.7	56.5	94.0	60.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.7	88.5	53.8	80.0	63.4	57.3	94.3	60.8
1957 II	49.9	87.4	54.2	79.3	63.0	57.2	92.1	62.0
1957 III	49.9	86.4	54.7	78.7	63.5	57.8	91.4	63.2
1957 IV	47.5	83.8	54.8	76.9	61.7	56.6	86.6	65.3
1958 I	44.3	80.1	54.9	74.2	59.7	55.3	80.8	68.5
1958 II	43.5	77.6	54.8	72.4	60.1	56.1	79.4	70.6
1958 III	45.6	79.1	55.0	73.5	62.0	57.6	82.9	69.5
1958 IV	47.6	80.7	55.2	74.7	63.7	59.0	86.3	68.4
1959 I	50.0	83.6	55.4	76.9	65.0	59.8	90.3	66.2
1959 II	52.4	86.0	55.7	78.7	66.5	60.9	93.9	64.8
1959 III	49.9	84.7	55.9	77.8	64.2	59.0	89.3	66.0
1959 IV	49.9	84.4	56.3	77.7	64.2	59.1	88.7	66.7
1960 I	52.9	86.7	56.6	79.5	66.5	61.0	93.3	65.3
1960 II	51.2	85.5	56.9	78.7	65.1	59.9	90.0	66.6
1960 III	50.1	83.9	57.2	77.6	64.6	59.7	87.7	68.1
1960 IV	48.7	81.4	57.1	75.8	64.3	59.8	85.3	70.2
1961 I	47.9	80.4	57.2	75.0	63.8	59.6	83.7	71.1
1961 II	50.0	81.7	57.4	76.0	65.8	61.2	87.1	70.3
1961 III	51.7	82.6	57.7	76.8	67.3	62.6	89.6	69.9
1961 IV	53.5	84.2	58.1	78.1	68.5	63.5	92.1	69.0
1962 I	54.2	84.8	58.5	78.7	68.9	63.8	92.5	69.0
1962 II	54.7	86.1	58.9	79.7	68.7	63.6	93.0	68.4
1962 III	55.4	86.0	59.3	79.7	69.5	64.4	93.4	68.9
1962 IV	56.2	85.6	59.5	79.5	70.7	65.7	94.4	69.5
1963 I	57.7	85.9	59.9	79.8	72.2	67.1	96.3	69.7
1963 II	59.6	86.5	60.3	80.3	74.2	68.9	98.9	69.7
1963 III	60.2	86.8	60.6	80.7	74.6	69.4	99.3	69.9
1963 IV	61.4	87.0	60.9	80.9	75.8	70.5	100.8	70.0
1964 I	62.2	87.2	61.3	81.1	76.7	71.4	101.6	70.3
1964 II	63.6	88.1	61.6	81.9	77.6	72.2	103.2	69.9
1964 III	64.6	88.9	62.0	82.6	78.2	72.7	104.2	69.8
1964 IV	65.4	89.4	62.7	83.2	78.6	73.2	104.3	70.1
1965 I	67.9	92.0	63.3	85.3	79.7	73.9	107.2	68.9
1965 II	69.3	92.8	64.0	86.0	80.5	74.6	108.2	69.0
1965 III	70.6	93.9	64.8	87.1	81.1	75.2	109.0	69.0
1965 IV	71.7	95.7	65.5	88.6	80.9	74.9	109.5	68.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	73.8	97.8	66.5	90.4	81.5	75.4	111.0	67.9
1966 II	75.2	99.6	67.6	92.0	81.7	75.5	111.3	67.8
1966 III	75.9	100.4	68.7	93.0	81.6	75.6	110.4	68.4
1966 IV	76.2	101.0	69.9	93.7	81.3	75.5	109.1	69.2
1967 I	74.9	100.1	71.1	93.4	80.2	74.8	105.3	71.0
1967 II	74.3	99.0	72.1	92.9	80.0	75.1	103.1	72.8
1967 III	74.6	99.2	72.9	93.2	80.0	75.2	102.3	73.5
1967 IV	76.5	99.9	73.8	94.0	81.5	76.6	103.8	73.8
1968 I	77.8	100.3	74.4	94.5	82.4	77.6	104.6	74.2
1968 II	79.0	101.0	75.2	95.2	83.0	78.2	105.0	74.4
1968 III	79.5	101.8	76.0	95.9	82.8	78.1	104.6	74.6
1968 IV	80.4	102.4	76.6	96.6	83.3	78.5	105.0	74.8
1969 I	81.7	102.6	77.4	97.0	84.2	79.6	105.5	75.4
1969 II	81.8	103.3	78.2	97.7	83.7	79.2	104.6	75.7
1969 III	82.4	103.6	79.0	98.1	84.0	79.6	104.4	76.2
1969 IV	81.4	102.5	79.6	97.5	83.5	79.4	102.3	77.6
1970 I	78.5	101.0	80.1	96.5	81.3	77.7	98.0	79.3
1970 II	77.6	98.6	80.7	94.8	81.9	78.7	96.2	81.8
1970 III	77.1	96.7	81.2	93.5	82.5	79.7	95.0	83.9
1970 IV	75.2	93.2	81.5	90.9	82.7	80.7	92.3	87.4
1971 I	77.4	93.9	81.8	91.5	84.6	82.5	94.6	87.1
1971 II	78.5	93.8	82.1	91.6	85.7	83.7	95.5	87.6
1971 III	78.8	93.1	82.3	91.1	86.5	84.6	95.8	88.4
1971 IV	80.4	94.0	82.5	91.8	87.6	85.6	97.5	87.8
1972 I	82.6	95.7	82.9	93.2	88.6	86.3	99.6	86.6
1972 II	84.8	97.3	83.5	94.6	89.7	87.2	101.7	85.7
1972 III	87.0	97.9	84.1	95.1	91.4	88.9	103.4	85.9
1972 IV	91.0	100.0	84.6	96.8	93.9	91.0	107.6	84.6
1973 I	94.4	102.1	85.3	98.7	95.7	92.4	110.6	83.6
1973 II	96.3	103.1	86.0	99.5	96.7	93.4	111.9	83.5
1973 III	96.9	103.2	86.8	99.8	97.1	93.9	111.7	84.1
1973 IV	96.5	104.1	87.7	100.8	95.8	92.7	110.0	84.3
1974 I	93.0	103.2	88.8	100.3	92.7	90.2	104.8	86.0
1974 II	92.9	102.0	89.9	99.7	93.2	91.1	103.4	88.1
1974 III	93.4	101.8	91.0	99.8	93.6	91.8	102.7	89.4
1974 IV	88.6	98.1	92.1	97.3	91.1	90.4	96.3	93.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	81.0	91.4	92.7	92.5	87.6	88.6	87.4	101.4
1975 II	82.8	89.8	93.0	91.3	90.7	92.2	89.0	103.5
1975 III	88.2	91.2	93.2	92.4	95.5	96.7	94.6	102.2
1975 IV	90.0	93.2	93.6	94.0	95.7	96.6	96.2	100.4
1976 I	92.2	95.6	94.2	96.0	96.0	96.4	97.9	98.5
1976 II	93.3	95.6	95.0	96.2	97.0	97.6	98.3	99.3
1976 III	94.3	96.1	95.8	96.8	97.4	98.1	98.5	99.6
1976 IV	95.0	96.5	96.5	97.2	97.7	98.5	98.4	100.1
1977 I	97.0	98.0	97.4	98.5	98.4	99.0	99.6	99.4
1977 II	99.8	99.7	98.3	99.7	100.1	100.1	101.6	98.5
1977 III	101.2	100.5	99.3	100.4	100.8	100.6	101.9	98.7
1977 IV	102.1	101.6	100.0	101.2	100.8	100.5	102.1	98.5
1978 I	101.9	102.5	101.0	102.1	99.8	99.4	100.9	98.6
1978 II	104.7	104.0	102.1	103.6	101.0	100.6	102.5	98.1
1978 III	106.6	104.8	103.1	104.4	102.1	101.7	103.3	98.4
1978 IV	108.3	106.2	104.1	105.7	102.5	102.0	104.1	98.0
1979 I	109.3	107.7	105.4	107.2	102.0	101.4	103.6	97.9
1979 II	108.5	106.1	106.7	106.3	102.1	102.3	101.7	100.6
1979 III	108.5	106.4	107.8	106.8	101.6	102.0	100.7	101.3
1979 IV	108.3	106.0	108.8	106.8	101.4	102.1	99.5	102.6
1980 I	108.1	105.8	109.9	106.9	101.1	102.1	98.3	103.8
1980 II	101.7	100.9	110.7	103.4	98.3	100.8	91.8	109.8
1980 III	99.9	99.2	111.3	102.3	97.7	100.7	89.8	112.2
1980 IV	104.9	101.8	111.8	104.4	100.6	103.1	93.8	109.9
1981 I	106.7	102.7	112.8	105.3	101.3	103.9	94.6	109.8
1981 II	107.4	102.5	113.5	105.3	102.0	104.8	94.6	110.8
1981 III	107.3	102.2	114.5	105.3	101.9	105.0	93.7	112.1
1981 IV	101.9	99.9	115.3	103.8	98.2	102.0	88.4	115.4
1982 I	98.1	97.4	115.8	102.1	96.1	100.7	84.7	118.9

June 3, 1982

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.4	64.4	36.5	55.3	64.1	55.0	97.1	56.6
1948 II	36.3	64.7	36.7	55.5	65.4	56.1	98.8	56.8
1948 III	36.1	65.4	37.0	56.1	64.4	55.3	97.6	56.7
1948 IV	36.7	65.1	37.3	56.0	65.5	56.3	98.3	57.3
1949 I	36.2	64.9	37.5	55.9	64.7	55.7	96.5	57.7
1949 II	36.0	64.6	37.7	55.7	64.7	55.8	95.7	58.4
1949 III	36.2	63.7	37.9	55.2	65.5	56.8	95.4	59.5
1949 IV	35.8	63.6	38.1	55.3	64.8	56.2	93.9	59.9
1950 I	37.4	63.3	38.3	55.1	67.9	59.1	97.5	60.6
1950 II	38.4	64.3	38.6	55.9	68.7	59.7	99.3	60.1
1950 III	39.3	65.4	39.0	56.8	69.2	60.0	100.8	59.6
1950 IV	39.7	65.4	39.4	56.8	69.9	60.8	100.9	60.2
1951 I	39.4	66.3	39.6	57.6	68.4	59.4	99.4	59.8
1951 II	39.6	66.9	39.9	58.0	68.2	59.2	99.0	59.8
1951 III	40.9	66.4	40.2	57.8	70.7	61.5	101.7	60.5
1951 IV	41.3	66.7	40.4	58.0	71.1	61.9	102.2	60.6
1952 I	41.2	66.9	40.6	58.3	70.8	61.6	101.6	60.6
1952 II	41.7	66.7	40.8	58.2	71.7	62.5	102.2	61.1
1952 III	41.6	66.9	41.0	58.4	71.2	62.1	101.3	61.3
1952 IV	42.1	67.9	41.3	59.1	71.2	62.0	102.0	60.8
1953 I	42.7	68.1	41.5	59.4	71.9	62.6	102.8	60.9
1953 II	43.1	68.0	41.8	59.4	72.6	63.4	103.2	61.4
1953 III	42.8	67.6	42.1	59.2	72.4	63.4	101.9	62.2
1953 IV	42.8	67.5	42.3	59.2	72.2	63.3	101.1	62.6
1954 I	42.7	67.4	42.5	59.2	72.1	63.3	100.4	63.1
1954 II	42.5	67.3	42.8	59.2	71.8	63.2	99.3	63.6
1954 III	43.3	67.4	43.1	59.4	72.9	64.2	100.4	64.0
1954 IV	44.1	68.4	43.4	60.1	73.4	64.5	101.7	63.4
1955 I	45.2	69.0	43.7	60.6	74.5	65.5	103.3	63.4
1955 II	45.8	69.2	44.1	60.9	75.1	66.1	103.8	63.7
1955 III	46.7	70.1	44.5	61.7	75.7	66.6	104.9	63.5
1955 IV	47.0	71.0	44.9	62.4	75.3	66.1	104.5	63.3
1956 I	47.2	71.6	45.3	62.9	75.1	65.9	104.3	63.2
1956 II	48.1	72.2	45.6	63.4	75.8	66.6	105.3	63.2
1956 III	48.2	72.1	46.0	63.5	75.9	66.8	104.8	63.7
1956 IV	48.2	72.1	46.3	63.6	75.8	66.9	104.1	64.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs Real Output	Labor Input	Capital Input	Total Factor Input	Productivity Ratios Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	48.4	72.1	46.7	63.7	75.9	67.1	103.7	64.7
1957 II	48.7	72.4	47.1	64.0	76.1	67.3	103.4	65.1
1957 III	48.8	72.5	47.5	64.2	76.0	67.3	102.7	65.5
1957 IV	48.9	71.5	47.8	63.6	76.9	68.5	102.3	67.0
1958 I	48.4	70.5	48.1	63.1	76.8	68.6	100.6	68.2
1958 II	48.7	69.8	48.4	62.7	77.7	69.7	100.6	69.3
1958 III	49.5	70.7	48.7	63.4	78.1	70.0	101.5	68.9
1958 IV	51.0	71.6	49.1	64.1	79.5	71.2	103.9	68.5
1959 I	51.7	72.1	49.4	64.6	80.0	71.6	104.6	68.5
1959 II	52.8	73.0	49.9	65.3	80.8	72.2	105.8	68.3
1959 III	52.6	73.5	50.3	65.7	80.0	71.6	104.6	68.5
1959 IV	52.9	73.5	50.7	65.9	80.3	72.0	104.3	69.0
1960 I	53.4	73.4	51.2	66.0	80.9	72.7	104.4	69.7
1960 II	53.6	74.0	51.6	66.5	80.6	72.5	103.9	69.8
1960 III	53.6	74.1	52.0	66.7	80.4	72.4	103.1	70.2
1960 IV	53.4	73.9	52.4	66.8	80.0	72.2	102.0	70.8
1961 I	54.0	73.7	52.7	66.7	80.9	73.2	102.4	71.5
1961 II	54.6	73.2	53.1	66.6	82.0	74.5	102.7	72.6
1961 III	54.9	73.4	53.6	66.9	82.1	74.8	102.4	73.0
1961 IV	56.2	73.9	54.0	67.3	83.4	76.0	103.9	73.1
1962 I	56.9	74.1	54.5	67.6	84.1	76.8	104.3	73.6
1962 II	57.2	74.9	55.1	68.4	83.6	76.3	103.8	73.5
1962 III	57.8	74.7	55.6	68.4	84.4	77.3	103.9	74.4
1962 IV	57.9	74.1	56.1	68.2	84.9	78.1	103.2	75.7
1963 I	57.9	74.7	56.6	68.8	84.3	77.6	102.4	75.7
1963 II	58.5	75.2	57.1	69.2	84.5	77.8	102.5	76.0
1963 III	59.5	75.4	57.6	69.6	85.4	78.9	103.2	76.4
1963 IV	59.8	76.0	58.2	70.2	85.1	78.6	102.7	76.5
1964 I	61.3	76.6	58.8	70.8	86.6	80.0	104.3	76.7
1964 II	61.9	76.9	59.4	71.2	87.0	80.6	104.2	77.3
1964 III	62.9	77.1	60.1	71.5	87.9	81.6	104.6	77.9
1964 IV	63.6	78.1	60.6	72.4	87.8	81.4	104.9	77.6
1965 I	64.6	78.7	61.3	73.1	88.4	82.1	105.4	77.9
1965 II	65.6	79.4	62.0	73.8	88.9	82.6	105.8	78.1
1965 III	65.9	79.1	62.9	73.8	89.3	83.4	104.8	79.6
1965 IV	68.1	79.6	63.4	74.4	91.5	85.5	107.4	79.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	69.1	80.3	64.1	75.1	92.0	86.0	107.8	79.8
1966 II	68.9	80.5	64.9	75.5	91.3	85.6	106.2	80.5
1966 III	69.7	80.9	65.6	76.0	91.7	86.1	106.2	81.1
1966 IV	69.9	80.6	66.3	76.1	91.9	86.7	105.4	82.3
1967 I	70.2	80.6	66.9	76.3	92.1	87.1	105.0	83.0
1967 II	71.4	80.6	67.5	76.5	93.3	88.6	105.7	83.8
1967 III	72.3	81.0	68.2	77.0	93.9	89.3	106.0	84.2
1967 IV	72.8	81.4	68.9	77.5	94.0	89.5	105.7	84.7
1968 I	73.7	81.6	69.7	77.9	94.7	90.4	105.9	85.4
1968 II	75.0	82.4	70.5	78.7	95.3	91.0	106.5	85.5
1968 III	76.4	83.2	71.2	79.5	96.1	91.8	107.3	85.6
1968 IV	76.8	83.8	72.0	80.2	95.7	91.6	106.6	85.9
1969 I	77.1	85.1	72.8	81.3	94.9	90.6	105.9	85.6
1969 II	77.7	86.0	73.7	82.2	94.5	90.4	105.5	85.6
1969 III	77.7	86.7	74.6	83.0	93.7	89.7	104.2	86.0
1969 IV	77.5	86.6	75.3	83.2	93.1	89.4	102.8	87.0
1970 I	77.9	86.9	76.0	83.6	93.2	89.6	102.5	87.4
1970 II	78.3	86.5	76.8	83.6	93.6	90.5	102.0	88.8
1970 III	79.6	86.3	77.6	83.8	95.0	92.2	102.6	89.9
1970 IV	78.5	87.0	78.2	84.5	92.9	90.2	100.3	89.9
1971 I	80.3	87.3	79.0	84.9	94.5	91.9	101.6	90.5
1971 II	80.4	87.8	79.8	85.5	94.0	91.6	100.8	90.9
1971 III	81.6	87.6	80.6	85.7	95.2	93.1	101.2	92.0
1971 IV	82.3	88.9	81.3	86.8	94.7	92.5	101.2	91.5
1972 I	83.9	89.6	82.1	87.6	95.8	93.6	102.2	91.6
1972 II	85.2	90.0	82.9	88.1	96.7	94.7	102.7	92.2
1972 III	86.4	90.4	83.8	88.6	97.5	95.6	103.1	92.7
1972 IV	87.5	91.0	84.7	89.4	97.9	96.2	103.3	93.1
1973 I	90.0	92.2	85.7	90.5	99.4	97.6	105.1	92.9
1973 II	89.4	93.2	86.7	91.6	97.7	95.9	103.1	93.0
1973 III	89.6	94.1	87.7	92.5	96.9	95.3	102.1	93.3
1973 IV	90.4	94.3	88.7	93.0	97.3	95.9	102.0	94.1
1974 I	90.4	94.3	89.5	93.3	96.9	95.8	101.0	94.9
1974 II	89.7	95.1	90.3	94.1	95.3	94.3	99.3	95.0
1974 III	88.3	95.0	91.1	94.3	93.7	93.0	96.9	95.9
1974 IV	88.3	94.3	91.8	94.1	93.8	93.6	96.2	97.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	88.0	93.1	92.2	93.5	94.1	94.4	95.5	99.0
1975 II	89.0	92.7	92.7	93.3	95.4	96.1	96.1	100.0
1975 III	89.9	93.5	93.3	94.1	95.5	96.1	96.3	99.8
1975 IV	90.6	94.8	93.8	95.1	95.2	95.5	96.6	98.9
1976 I	93.4	95.8	94.4	96.0	97.3	97.6	98.9	98.6
1976 II	94.1	95.7	95.2	96.2	97.8	98.3	98.8	99.4
1976 III	94.5	96.0	95.9	96.7	97.7	98.3	98.5	99.8
1976 IV	94.8	96.9	96.5	97.5	97.2	97.8	98.2	99.6
1977 I	97.6	98.0	97.4	98.4	99.2	99.6	100.3	99.3
1977 II	99.3	99.8	98.2	99.6	99.7	99.5	101.1	98.4
1977 III	101.1	100.9	99.2	100.5	100.6	100.2	102.0	98.3
1977 IV	102.0	101.9	100.0	101.3	100.6	100.1	102.0	98.2
1978 I	102.5	102.8	100.9	102.2	100.3	99.7	101.6	98.1
1978 II	105.0	105.4	101.9	104.3	100.7	99.6	103.0	96.6
1978 III	104.9	105.9	102.8	104.9	100.0	99.1	102.1	97.1
1978 IV	106.1	107.5	103.8	106.3	99.8	98.7	102.2	96.6
1979 I	107.2	108.7	104.7	107.4	99.9	98.6	102.4	96.3
1979 II	106.4	108.9	105.7	107.8	98.6	97.7	100.7	97.1
1979 III	107.4	110.1	106.6	109.0	98.5	97.5	100.8	96.8
1979 IV	108.1	111.0	107.4	109.8	98.4	97.4	100.7	96.8
1980 I	108.8	111.5	108.1	110.4	98.5	97.6	100.6	97.0
1980 II	106.7	109.8	108.9	109.6	97.4	97.2	98.0	99.2
1980 III	108.7	110.3	109.7	110.2	98.6	98.5	99.1	99.4
1980 IV	109.0	111.9	110.7	111.6	97.6	97.4	98.4	99.0
1981 I	111.2	112.8	111.5	112.5	98.9	98.6	99.8	98.8
1981 II	110.4	111.9	112.3	112.2	98.4	98.6	98.3	100.4
1981 III	109.9	112.2	113.2	112.7	97.5	97.9	97.1	100.9
1981 IV	109.3	112.9	114.0	113.4	96.4	96.8	95.9	101.0
1982 I	110.1	112.8	114.7	113.6	96.9	97.6	96.0	101.7

June 3, 1982